

Hunter Centre for Entrepreneurship
University of Strathclyde

**Dynamics in Entrepreneurial Decision-making and Coping Strategies:
Diary-based Case Analysis of Resilience in Early Stage Entrepreneurs as a
Developmental Process**

By Aaron M. Jensen

Thesis submitted in accordance with the requirements for
the Degree of Doctor of Philosophy

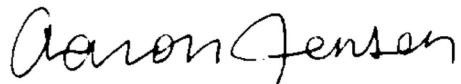
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DECLARATION

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Date: March 15th, 2020

ABSTRACT

Entrepreneurship scholars have highlighted the need to specify entrepreneurial performance dynamics. While a growing chorus of scholars have highlighted the developmental nature of the entrepreneurial process, details of how this process develops still need empirical elaboration. The thesis explores the role of entrepreneurs' decision-making and coping strategies as an emerging temporal experience. This thesis asks how capacities are developed by entrepreneurs to adapt and overcome adversity during venture creation. This research contributes much needed empirical elaboration to how entrepreneurial decision-making plays out through deliberation on factors relating to adversity facing their businesses.

The study adduced longitudinal evidence from 108 diary-based accounts of participants' day-to-day experience and 12 in-depth qualitative interviews offering direct insight into the entrepreneurial process, drawn from six participating entrepreneurs over a three-month timeframe. The research adopted philosophical, epistemological and methodological rationales conducive to a dynamic and process-focused approach. This research employed a 'connected contributions' approach for conducting mixed methods research, which aimed for complementary assistance by combining the strengths from both qualitative (core) and quantitative (supplementary) methods. Within- and cross-case analysis reveal patterns for how unfolding business challenges were perceived and what resources were used to cope with chronic and acute challenges. These patterns were grouped under the categories of perceptions of external business context, entrepreneurial self-efficacy, and entrepreneurial effectuation.

The thesis focuses on the micro-processual dynamics of decision-making and coping strategies with the aim of making conceptual contributions to the literature on entrepreneurial resilience. It also focuses on within-person drivers for continuity and change in entrepreneurial performance, with emphasis on links to subsequent failure experiences, learning and adaptation to adversity. Findings indicate that entrepreneurs developed decision biases, stress responses and coping strategies to reduce uncertainty within their businesses, regardless of emergent experiences with emotional, financial and relational impacts. Implications for entrepreneurs, pedagogy and future research are discussed, as well as the limitations of the thesis and avenues for further research.

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I wish to express my deepest appreciation to my family in their unwavering love and support from the start of this journey. My mom, Lisa Sayles, who offered her love and encouragement; I feel extremely grateful for our connection. My older brother, Dr Eric Jensen, who provided guidance as a brilliant scholar and critical friend; I feel inspired by your leadership and honored by your belief in me and the value of this research.

Finally, while impossible to do so beyond this context, I also want to recognise the legacy of Dr Jason Cope, because the brilliant insights he left in our field are foundational to this thesis. Entrepreneurial resilience only exists as we conjure contrasting images in our mind of ‘failures’ with ‘successes’, and then place these images side-by-side on a timeline together with our unique experiences, desires and difficulties. As an extension from Cope’s research legacy, I hope that this thesis will offer bridges to others in our field and safe travel between theories, methods and practices.

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LIST OF ABBREVIATIONS

WP = Within-Person

SECTION 1: INTRODUCTION

CHAPTER 1:INTRODUCTION

1.1 Overview

This chapter clarifies entrepreneurship as a developmental process. Previous entrepreneurship research on failure and success has tended to retrospectively describe process-oriented accounts (e.g., Denrell, 2003; Cope, 2011; Byrne, 2013). This dissertation investigates entrepreneurial processes prospectively throughout the developmental journeys of entrepreneurs to produce more in-depth and holistic accounts (Grégoire, Corbett & McMullen, 2010; Dimov, 2011). This dissertation defines ‘developmental’ as progressive elaboration that occurs for entrepreneurs during venture creation that results from an application of knowledge, skills and techniques to cope with competing demands. This dissertation utilises longitudinal data collection with diary-based methods (Nezlek, 2012) to explore how self-assessed performance factors unfold for individual entrepreneur’s trajectories over time (Shaver & Scott, 1991; Corner, Singh, & Pavlovich, 2017) within challenging and uncertain business contexts. This chapter situates the context and scope of the present study and provides a representation of what will be found in the remainder of the dissertation.

1.2 Problem Statement

The experience of being an entrepreneur develops over time (Gartner & Shane, 1995; Cope & Watts, 2000) and can occur within the context of adversity (Drnovsek, Örtqvist & Wincent, 2010). For individual entrepreneurs, movement through the steps or stages of starting a company represents an emerging temporal experience, as a journey where both the destination and the path to that destination can be uncertain and unknown. While temporal dynamics are at the heart of entrepreneurship (Bird & West, 1997, p. 5; McMullen & Dimov, 2013), entrepreneurship scholars know strikingly little about how this journey unfolds within an individual entrepreneur over time and the dynamics of performance as they occur (Frese & Gielnik, 2014). Researchers have brought attention to the need for a better understanding of the factors and processes that account for entrepreneurial outcomes (Brockner, Higgins, & Low, 2004; Cope, 2011). The focus of this dissertation falls in line with calls by Moroz and Hindle (2012) and other scholars to depart from much existing entrepreneurship literature by taking a process-oriented, dynamic perspective (e.g., Frese & Gielnik,

2014; McMullen & Dimov, 2013; Grégoire et al., 2010; Hisrich, Langan-Fox & Grant, 2007; Cope, 2005). This initial problem recognition serves to highlight implications for this dissertation.

This problem recognition also serves to highlight implications for this dissertation. Longitudinal research has been necessary to advance theories and research that addresses such dynamics in how entrepreneurs' individual-level capability emerges, evolves, and changes over time (Kozlowski, 2009, p. 3). How performance factors unfold for individual entrepreneurs over time is still a remaining gap (Shaver & Scott, 1991; Corner et al., 2017). For example, this dissertation builds from prior research focused on outcomes *after* entrepreneurs fail (e.g., Denrell, 2003; Cope, 2011; Byrne, 2013) but an understanding of how failures develop is still called for by entrepreneurship scholars (e.g., Cope, 2011). This dissertation engages with key questions for entrepreneurship research that concerns these more in-depth and holistic accounts for how and why entrepreneurial development and outcomes occur (Cope & Watts, 2000; Grégoire et al., 2010). Such an approach may be crucial for revealing factors affecting entrepreneurial performance (Davidsson, 2007; Dej, 2010; Frese & Gielnik, 2014). This dissertation addresses the role of entrepreneurs' coping strategies and decision-making processes as a developing capacity to adapt and overcome adversity during the early stages of venture creation.

In entrepreneurship, the study of resilience is supported as a necessary delineation of personal and environmental factors that make entrepreneurial success more likely to occur (Brockner et al., 2004). In this literature, resilience has been seen as a positive quality in entrepreneurs, as a personal characteristic or trait (Bullough et al., 2013; Hayward et al., 2010). An alternative explanation is based on a process-orientation of entrepreneurship, whereby the decision to become an entrepreneur results from reactions to significant and symbolic life events and then influence the evolution of entrepreneurial endeavours after being established (Bernard & Barbosa, 2016). In this dissertation, entrepreneurial resilience is conceptualised as an entrepreneurs' capacity to overcome adversity during the venture creation process (Singh & Pavlovich, 2011; Frese & Gielnik, 2014) and bounce back after facing failures (Hayward et al., 2010; Shepherd, 2003; Shepherd et al., 2011). Here also exists key gaps this dissertation aims to address, whereby build ups to failure might be understood as situationally inappropriate responses that lead to 'negative' outcomes.

1.3 Statement of Purpose

The purpose of this research is to explore entrepreneurial decision-making and coping strategies as a developing capacity to respond appropriately to business challenges and produce desired results. Additionally, exploration into how performance factors unfold for individual entrepreneurs was a central focus of this research, including the impact of specific situations, challenges or dilemmas on entrepreneurs and their business (Deakins & Freel, 1998). Dew and Sarasvathy (2007) suggest that entrepreneurial experience includes both mundane and momentous events. The practical implication is that entrepreneurs operate in ways that are at once both personal and professional (Wincent & Örtqvist, 2009). This also serves to support an argument that business challenges may be both uniquely personal and general to the venture creation process (Gartner, 1985; Moroz & Hindle, 2013). Furthermore, the epistemological implication is that development in entrepreneurship is more appropriately a cumulative series of interdependent activities and events that take on properties rooted in an entrepreneurs' responses (Morris, Kuratko, Schindehutte & Spivack, 2012). It is the entrepreneur's experience of these activities and events that Morris et al. (2012) propose should be a principal focus in entrepreneurship research. In acknowledging that the views of entrepreneurs are likely to originate from their everyday experiences (Nagel, 1974; Cope & Watts, 2000; Dew & Sarasvathy, 2007), the need for studies that place the entrepreneur at the centre of research is further highlighted as a core focus in this dissertation.

Extant literature suggests that whether opportunities are discovered and exploited by entrepreneurs will depend on their available information (Kirzner, 1997; Shane, 2000), cognitive capacity (Shane & Venkataraman, 2000) and structural awareness (Krueger, 2007). Within this focus, researchers have been oriented to differences in entrepreneurs through their cognitive abilities (Shaver & Scott, 1991). This has emphasised an entrepreneurs' choice and different cognitive rationale, including information processing and aspects of decision-making psychology (Tversky & Kahneman, 1974; MacMillan & Katz, 1992; Busenitz, & Barney, 1997; Baron, 1998; Simon, Houghton, & Aquino, 1999). This dissertation has examined entrepreneurial decision-making as a developmental capacity to respond appropriately to business challenges and produce desired results.

The context of these entrepreneurial experiences has been researched with a focus on uncertainty, resource scarcity and urgency to perform (Baum, Lock & Smith, 2001; Baum, 2004). Furthermore, different dimensions of uncertainty have been considered such as instability and change, organisational support (Dess & Beard, 1984), and complex environments that are difficult to understand (Aldrich & Wiedenmayer, 1993). The methods entrepreneurs use for overcoming these types of challenges may depend on different decision-making heuristics, which can be deliberate or spontaneous, but the usefulness of a decision will depend on the situational contexts (Louis & Sutton, 1991). Such situations require, as Cardon et al. (2009) point out, a ‘motivational effect’ that can stimulate entrepreneurs to overcome obstacles and remain engaged (p. 512). However, the need for studies in entrepreneurship to extend beyond cognitive explanations has previously been highlighted in the literature (Krueger, 2007). This dissertation explores how entrepreneurial decisions developed within external contexts that are perceived as complex, changing and uncertain.

This dissertation explores how performance factors unfold over time for individual entrepreneurs in their business contexts and marketplace (Shaver & Scott, 1991; Singh et al., 2007; Corner et al., 2017). Certainly, whether or not macroconditions are adverse (e.g., Zahra & Neubaum, 1998) could depend on particular configurations of external factors and the entrepreneur’s ability to cope successfully. Scholars contend that understanding how entrepreneurs learn from the adversity they face has significance for entrepreneurship research (e.g., Singh et al., 2007; Cope & Watts, 2000; Cope, 2011; Jenkins et al., 2014). Early research has suggested that learning from experience while actively engaged with entrepreneurship is a process by which individuals develop into becoming entrepreneurs (Scott and Lewis, 1984). For example, an entrepreneur's past experience might be an asset for their new endeavour, but if the entrepreneur plays an active role in developing their business, then the entrepreneurs’ ongoing experiences and learning might be expected to play a greater role in their personal ability to develop this business. Such a perspective fits conceptually with the notion of ‘learning journeys’ (Cope, 2011) and situated learning (Knowles, 1990; Lave & Wenger, 1991). These notions hold value for the conceptualisation of entrepreneurial learning used in this dissertation.

This dissertation explores how performance factors unfold for individual entrepreneurs by focusing on specific situations, challenges or dilemmas that entrepreneurs face while starting their business (Deakins & Freel, 1998). A broader conceptualisation of entrepreneurial resilience has been integrated from examination of extant literature as an entrepreneurs' capacity (e.g., Zhao & Seibert, 2006) to overcome adversity during the venture creation process (Singh & Pavlovich, 2011; Frese & Gielnik, 2014) and bounce back after facing failures (Hayward et al., 2010; Shepherd, 2003; Shepherd et al., 2011). Hayton et al. (2013) bring attention to the importance of response strategies used by entrepreneurs when encountering adversity. As such, a perspective of entrepreneurial coping strategies may provide necessary context for understanding how entrepreneurial journeys develop (Shaver & Scott, 1991; McMullen & Dimov, 2013; Corner et al., 2017). This conceptualisation of entrepreneurial resilience as a multidimensional phenomenon (Cicchetti & Garnezy, 1993) has required engagement with processual and developmental perspectives. This reflects a more process-based view at the centre of focus in this dissertation.

The present approach in this dissertation prioritises both processual and developmental perspectives to explore entrepreneurial resilience in early stage entrepreneurs. Hayton et al. (2013) bring attention to the importance of response strategies used by entrepreneurs when encountering adversity. Indeed, entrepreneurial coping strategies has been expected to help explain how entrepreneurial journeys unfold over time (Shaver & Scott, 1991; Corner et al., 2017) while they encounter hardship and engage in their business endeavours. The theoretical basis behind stress research has encompassed support for adaptive responses and positive outcomes (Selye, 1974; Wong, 2006; Feder et al., 2009). Thus, across academic fields, researchers have increasingly understood resilience as an active process of adapting stress responses to address a challenging context (Feder et al., 2009). This dissertation builds a theoretical framework that highlights the role of stress and coping responses in entrepreneurial decision-making processes and business outcomes.

Additionally, in the present approach, factors contributing to entrepreneurs' experience of stress were expected to change over-time, depending on coping resources available to entrepreneurs when addressing challenges. This makes resilience theoretically viable as a psychological construct, whereby dimensions of entrepreneurial performance are conducive to empirical research. For example, an

entrepreneur may be faced with unexpected sources of adversity and stress, large and small, at any point during the start-up process but the practical strategies they use would be essential for finding resolutions to specific situations and business challenges. However, the sources of stress for an entrepreneur may also be so embedded in daily life that it would not be possible for an entrepreneur to accurately reconstruct their memory of challenging situations which they experience as stressful.

The present approach in this dissertation has prioritised both processual and developmental perspectives to explore a broader conceptualisation of entrepreneurial resilience as a multidimensional phenomenon that unfolds in challenging contexts. The review of entrepreneurship literature offers a basis to this argumentation that entrepreneurial resilience, when viewed from a process-based epistemology, can help explain effects from decision-making and coping factors, including: managing uncertainty (Frese & Gielnik, 2014), cognitive adaptability (Haynie & Shepherd, 2009), learning and recovery from failure (e.g., Singh, Corner & Pavlovich, 2007; Cope, 2011; Sitkin 1992; Shepherd, 2004; Singh et al., 2014), attributing emotional significance (Jennings et al., 2015; Cope, 2011; Baron, 2014), and coping with “entrepreneurial barriers” as psychological conflicts that motivate entrepreneurs (Shane et al., 2003) to resolve such conflicts (Shapiro, 1975; Krueger, 2008). Therefore, the purpose of this research has been to explore the role of entrepreneurs’ decision-making and coping strategies as a developing capacity to adapt and overcome adversity during early stages of venture creation.

Therefore, this dissertation has addressed failure as a series of situationally inappropriate coping responses that lead to ‘negative’ outcomes relative to the entrepreneurs’ objectives; alternatively, success has been addressed as a series of situationally appropriate coping responses that lead to ‘positive’ outcomes relative to the entrepreneurs’ objectives. Indeed, gaps are apparent within the entrepreneurial literature that neither development towards failure nor recovery following failure are well-elaborated empirically; it is assumed, but not clarified. Given that coping strategies can be developed, this line of research holds promise in terms of pointing towards beneficial interventions that could at the same time improve the personal lives and business performance of entrepreneurs.

1.4 Research Questions

Scholars have proposed that the experience of engaging in entrepreneurial activities and events should be a principal focus in entrepreneurship research (Morris et al., 2012). In acknowledging that the views of entrepreneurs are likely to originate from their everyday experiences (Nagel, 1974; Cope & Watts, 2000; Dew & Sarasvathy, 2007), the purpose of this research has been to explore entrepreneurial decision-making and coping strategies as a developing capacity to respond appropriately to business challenges and produce desired results. This purpose places entrepreneurs as a central focus and leads to the following research question:

How do early stage entrepreneurs' coping strategies and everyday decision-making processes relate to self-appraisals of business performance?

The overarching goal of this inquiry is to examine the combined contribution of entrepreneur's capability, coping strategies, and decision-making as having aggregate and time-lagged effects on subjective assessments of business performance. Based on this goal, the following research objectives were formulated for this study:

1. To explore the role of entrepreneurial decision-making:

This dissertation explores entrepreneurial decision-making as a developmental capacity to respond appropriately to business challenges and produce desired results. This is reflected in the following sub-question:

"How do entrepreneurs' decision-making develop over time as they encounter sources of adversity in their businesses?"

2. To explore the role of entrepreneurial stress and coping strategies:

An entrepreneur may be faced with unexpected sources of adversity but practical strategies they use would be essential for finding resolutions. Factors contributing to entrepreneurs' experience of stress is expected to change over-time, depending on coping resources available when needing to address challenges. This is reflected in the following sub-question:

"How do early stage entrepreneurs develop coping strategies to overcome everyday sources of adversity?"

3. To explore entrepreneurial appraisal (i.e., meaning-making):

External factors may not necessarily lead to adverse conditions or challenging contexts when entrepreneurs can appraise situation-specific challenges correctly. This dissertation explores entrepreneurial decision-making and coping as a developmental capacity to make sense of business challenges and produce desired results. This includes the following sub-question:

"What role do coping strategies and evolving decision-making approaches play in entrepreneurs' appraisals of their business performance and personal capacity?"

4. To explore the link between entrepreneurial coping, decision-making and personal capacity to different levels of adversity:

This research conceptualises entrepreneurial resilience as a multidimensional phenomenon that unfolds as an entrepreneurs' capacity to face challenges during the venture creation process and bounce back. This approach prioritises both processual and developmental perspectives to explore entrepreneurial resilience in early stage entrepreneurs. This includes the following sub-question:

"How do entrepreneurs' coping and decision-making practices affect their capacity to overcome one-time, intermittent and persistent sources of adversity?"

Addressing these research questions will have implications for important ongoing discourse in the entrepreneurship literature. Indeed, discourse is elucidated in the following chapters to identify how and why exploring these research questions and sub-questions contributes to entrepreneurship theory and practice.

1.5 Rationale and significance

The promise of inquiry into resilience-promoting processes is the inquiry into key questions about adaptation to adversity that may be addressed within entrepreneurship research (Masten, 2011; Lee & Wang, 2017; Tugade & Fredrickson, 2004). Within the scope of this dissertation and research approach is an interconnected view of entrepreneurs as having multiple roles and obligations that they must balance at any given time point, both within their business endeavour and personal lives (Wincent & Örtqvist, 2009). Indeed, business narratives that entrepreneurs offer to explain how a venture came to be are likely to include this notion of an intertwined life and business trajectory (Scott & Lewis, 1984; Cope & Watts, 2000; Shepherd, 2003; Dew & Sarasvathy, 2007; Cope, 2011). Such entrepreneurial creation narratives may include where entrepreneurs grew up as children, what colleges or courses were attended, and when or how important people influenced various decisions along the path towards starting new ventures. The narrative might go on to include key or important people—both professionally and personally—or decisions as ventures grow, which may involve decisions with significant others to get married, have children, move locations or address financial concerns. Any number of other aspects of life would be expected to cross-over between personal and business, such as self-doubt and uncertainty about the future.

This approach brings the work-family interface into focus (Grzywacz & Marks, 2000; Grzywacz, Carlson, Kacmar & Wayne, 2007; Jennings & McDougald, 2007). These factors highlight connections between past, present and future in entrepreneurial trajectories (Van de Ven & Sminia, 2012). Furthermore, this view clarifies a central argument that individual entrepreneurs' decision-making processes and personal transformation may be more continuous than is typically detailed within entrepreneurship research that only use outcome-based methodologies. Key questions for this dissertation concern the ongoing development of entrepreneurs' experiences in everyday contexts, such that entrepreneurs do not know *a priori* the outcomes of events and activities (Van de Ven, 1992).

Entrepreneurship researchers have advocated for more rigorous applications of process-based epistemology in the study of entrepreneurship (Gartner, 1985; Shaver & Scott, 1991; Minniti & Bygrave, 2001; Moraz & Hindle, 2013; Hayton et al., 2013;

McMullen & Dimov, 2013; Baron, 2014). Scholars have further called for inquiry into the processual nature of entrepreneurial phenomena (West, 1997; Davidsson, 2003; Dew & Sarasvathy, 2007; Hitt et al., 2007; Moroz & Hindle, 2012; Frese & Gielnick, 2014). This initial problem recognition has served to highlight epistemological implications for this dissertation, which falls in line with calls by Moroz and Hindle (2012) and other scholars to depart from much existing entrepreneurship literature by taking a process-oriented, dynamic perspective (e.g., Frese & Gielnik, 2014; McMullen & Dimov, 2013; Grégoire et al., 2010; Hisrich, Langan-Fox & Grant, 2007; Cope, 2005). The present approach in this dissertation prioritises more dynamic and processual perspectives.

Indeed, Moroz and Hindle (2012) have highlighted the limitations to understanding entrepreneurship in which venture creation is characterised as a set of variables connected by speculative links, without exploring sequences of activities. A longitudinal approach can help reveal antecedents to entrepreneurial outcomes for individual entrepreneurs, given that development of event-based understanding of entrepreneurial processes will likely illuminate the historically outcome-driven explanations within entrepreneurship (Hisrich et al., 2007; Moroz & Hindle, 2012; Morris et al., 2012; Bolger & Laurenceau, 2013; Frese & Gielnick, 2014). Rather, there are many influential factors both within and outside of the context of business venture creation which can impact an entrepreneurs' development (Baum et al, 2001). However, providing a picture of how these factors impact the individual-level to the venture creation process is beyond the scope of studies employing cross-sectional methods (e.g., Gatewood, Shaver & Gartner, 1995) or outcome-based research approaches (Moroz & Hindle, 2012). This includes a need for greater attention and understanding of the factors and processes that account for entrepreneurial outcomes (Brockner et al., 2004; Cope, 2011). The approach in this dissertation prioritises contextualised explanations for processual and developmental perspectives by using a longitudinal research approach.

This dissertation takes a critical stance to findings from past cross-sectional studies in entrepreneurship which have emphasised primarily negative effects from heuristics and cognitive biases (e.g., Shaver & Scott 1991; Palich & Bagby 1995; Simon et al., 1999). For example, an objective of this dissertation is to reveal antecedents to entrepreneurial decision-making biases that affect entrepreneurial

outcomes, without necessarily assuming that the consequences of these biases are negative, and without isolation from positive effects. This is especially important given the stance taken in this dissertation that precursors to decision-making, actual decisions, and the consequences of decisions unfold for entrepreneurs over time during venture creation. Indeed, there are many influential factors both within the business (e.g., the entrepreneur and key staff) and outside (e.g., the context of the business venture) which are likely to impact situational assessments and decision-making. Moroz & Hindle (2012: 787) provided rationale that studies of entrepreneurial process need to align methodology to the phenomena being investigated if a more complete picture of impacts from various factors influencing venture creation are to be understood.

This research aims to contribute to theory by revealing the developmental and processual nature of entrepreneurial resilience as it operates through daily decision-making and coping. The epistemological implications include perspectives of entrepreneurship as more appropriately a cumulative series of interdependent activities and events that take on properties rooted in an entrepreneurs' responses to adversity (Morris et al., 2012). By applying the lens of entrepreneurial coping processes, this dissertation has implications for broader questions about the intrinsic nature of entrepreneurship, how entrepreneurs manage the intertwining of their personal and business lives, and how they balance their emotional needs with the practical challenges of running a successful business. This research is informed by a theoretical framework highlighting the role of stress and coping responses in entrepreneurial decision-making processes and outcomes. Indeed, the precise nature and pathways for such effects will be revealed through the present research. Given that coping strategies can be developed, this line of research holds promise in terms of pointing towards beneficial interventions that could at the same time improve the personal lives and business performance of entrepreneurs. This places entrepreneurial resilience into the wider framework of adaptive stress management and brings it closer to an applied science.

1.6 Overview of Methodology

This dissertation has adopted philosophical, epistemological and methodological rationales conducive to a dynamic and process-focused approach. Following an inductive-qualitative-subjective research tradition, the design and implementation of this primarily qualitative study have reflected important implications for process-based epistemology within entrepreneurship (e.g., Moroz & Hindle, 2013). This study has entailed defining entrepreneurial decision-making and coping as an interwoven developmental process, and then implementing this definition in the research design and development of intensive longitudinal methods. In this dissertation, intensive longitudinal methods involved sequential measurements sufficiently frequent to allow characterisation of unfolding temporal processes (e.g., Van de Ven, 1992; Bolger & Laurenceau, 2013) in a sample of early stage entrepreneurs actively engaged in establishing their ventures. More specifically, these intensive methods involved twice-weekly longitudinal data collection taking place over three-month periods. This research approach has focused specifically on the micro-processual dynamics of decision-making and coping strategies with the aim of extending conceptual contributions about entrepreneurial resilience.

In this dissertation, intensive longitudinal research established within-person links between events that happen in earlier time frames with the effects and outcomes in subsequent events (Van de Ven, 1992; Schmitz, Klug, & Hertel, 2012). This research approach has been highly pertinent to extant entrepreneurship methodological literature that highlights the need for research methods capable of exploring the micro-processual dynamics and developmental nature of venture creation through *prospective*, rather than *retrospective* accounts (Wagoner & Jensen, 2014). Indeed, highly relevant to this study design has been exploring certain phenomena that may appear stable with methods that take a single snapshot in time, yet may in fact be unstable when multiple snapshots are taken and then considered in a wider time-window (Roe, 2014). Qualitative studies that rely only on traditional retrospective interviews have the limitation that data collection captures snapshots that are fundamentally based on the research participant's historical reconstruction and rationalisation of past events (Nezlek, 2012; Wagoner, 2007). Likewise, research methods rooted in only survey methods have tended to face challenges of measuring entrepreneurial constructs concisely (Brundin, 2006). These considerations have been important for the research design in this dissertation.

This dissertation has prioritised a connected contributions approach for conducting mixed methods research (Morgan, 2007), which aimed for complementary assistance by combining the strengths from both qualitative (core) and quantitative (supplementary) methods. Within the study, in-depth semi-structured interviews were conducted with six participant entrepreneurs before and after a 3-month diary study, as an intensive longitudinal method. The core qualitative method of semi-structured interviews sought out self-assessments of personal strengths and vulnerabilities that might be associated with particular challenges, resources and potential resolutions for each entrepreneur and their business. The supplementary quantitative method of diary studies was designed to gather self-report responses from participant entrepreneurs at regular intervals across multiple stages. The central focus of these self-reports were various challenges faced by the entrepreneur participants, the entrepreneurs' responses and anticipated outcomes for what might happen for their businesses. The data collection included how these challenges were perceived and what resources were used to cope with particular challenges. This research approach has prioritised calls from within entrepreneurship more sophisticated research methods capable of examining the micro-processual dynamics of entrepreneurship.

Longitudinal research within entrepreneurship literature is underpinned by recognition of entrepreneurship as a multi-stage process (Hisrich et al., 2007; Hitt et al., 2007; Moroz & Hindle, 2012; Frese & Gielnick, 2014). Longitudinal methods are more possible to attune towards investigating such multi-stage processes because they can be conducted alongside a process as it unfolds, rather than relying on retrospective accounts. A diary survey is, by definition, a longitudinal design (Schmitz et al., 2012) with an emphasis on individual-level processes. Indeed, intensive longitudinal methods such as diary methods have previously been applied to research process-like phenomena (Gable & Reis, 1999; Nezlek, 2012). Such intensive longitudinal methods involve sequential measurements sufficiently frequent to allow characterisation of unfolding temporal processes (Bolger & Laurenceau, 2013). The research approach in this dissertation has focused specifically on the micro-processual dynamics of decision-making and coping strategies with the aim of extending knowledge about entrepreneurial resilience.

1.6.1 Role of Researcher

The researcher determined cross-sectional designs were insufficient to make claims about micro-processes and entrepreneurial development. The researcher collected and analysed data from entrepreneurs in this primarily qualitative study through interviews and an intensive repeated measures diary study design. This is justifiable when an understanding of social phenomena, naturalistic settings, meanings, experiences, context and the individual views of study participants are inherent to research questions and study objectives (Neergaard & Ulhøi, 2007). Thus, it is acceptable that the researcher's closeness to research subjects and resulting data and analysis will be required for detailed description and expanded explanations about contexts relevant to a research subjects' viewpoints. Close involvement for researchers may initially forgo objectivity and detachment from interpretation of results. As such, pragmatic approaches to research design and analysis are important for reducing deficits in particular methods (Morgan, 2007; Johnson & Onwuegbuzie, 2004).

In order that findings might emerge from frequent or significant themes (Glaser & Strauss, 1967), the inherent subjectivity of research subjects and researcher are allowed by qualitative research approaches and provide necessary permissiveness to research instruments and analytical frameworks. As a result, the researcher becomes involved in interpretation of subjective, idiosyncratic data and becomes the research instrument when interpreting the data. As such, analysis involved a 'testing' of the researchers' ideas (Seale, 1999) through repeated interrogation of data (Strauss & Corbin, 1990). This was intended to limit premature closing down of categories that could occur from researcher bias or presumptions prior to data collection and analysis. Indeed, use of an inductive approach contrasts to the deductive model of analysis, which starts with theoretical assumptions, then posits hypotheses that are tested against the data. In contrast, this approach began with the data and a process of developing micro-level descriptions, working up to explanations for business performance across cases by the end of the analysis process.

1.6.2 Researcher Assumptions

This dissertation starts from a perspective that an entrepreneur's personal background and characteristics, as well as beliefs in relation to self-efficacy and control will impact their appraisals of business progress over time. These various personal and motivation factors need to be considered in concert, rather than in isolation, with external factors. For example, entrepreneurs are known to persist in the entrepreneurial journey despite considerable obstacles, where an observer from the outside would appraise the situation negatively, the entrepreneur might instead perceive it positively. There are clearly personal factors that drive motivation, such as frustrations with existing products or services available in their local market and a belief they can do better. The total equation must also account for exceptional situations, such as when entrepreneurs are unable to overcome the obstacles they encounter. Thus, the ongoing dynamics of these multiple dimensions are important to the study of entrepreneurship in this dissertation.

In order to accomplish the research methodology, electronic diary methods were chosen as a pragmatic approach to collect subjective, idiosyncratic data for more detailed descriptions and expanded explanations about contexts relevant to a research subjects' viewpoints. The choice of electronic diary methods for this study is rooted in key assumptions:

- 1) The inherent subjectivity of research subjects and researcher are allowed by qualitative research approaches and provide necessary permissiveness to research instruments and analytical frameworks.
- 2) The design and implementation of this primarily qualitative study will provide important contributions for process-based epistemology within entrepreneurship (e.g., Moroz & Hindle, 2012).
- 3) Sequential measurements sufficiently frequent will allow characterisation of unfolding temporal processes (Bolger & Laurenceau, 2013). Through intensive repeated measures diary study design, this research instrument and analytical framework will allow greater visualisation of micro-processes.
- 4) Electronic methods, where entries are possible through smartphone devices, will be more convenient for entrepreneurs' busy lives than a paper diary.

- a. They will have access to their smartphones because they will keep these devices with them, and therefore be in a position to complete a diary entry when they have a few free minutes.
 - b. That is, electronic methods will increase compliance with the preferred data collection protocols. While there is evidence favouring this assumption in the methodological literature (e.g. Palermo et al., 2004), it is not conclusive.
- 5) Data quality will be at least as good as paper surveys or better. On this point, there is evidence in favour of there being no difference in data quality (e.g. Bushnell, 2003) and evidence suggesting that paper diaries may yield superior data quality (e.g. Green et al., 2006).
- a. However, these prior studies may be outdated and no longer hold in the contemporary context of this present study whereby use of digital technologies are ubiquitous. In particular, these assumptions may not hold with the target sample in this study of technology entrepreneurs (see Section 3.4.3 Technology entrepreneur) who may be comfortable with digital data collection.
- 6) Reactivity effects (See Section 3.7.5 Concern for reactivity effects) will not be so significant that they undermine the accuracy of the data. Indeed, diary researchers have typically assumed that diaries are non-reactive (Barta, Tennen, & Litt, 2011; Fisher & To, 2012; Nezlek, 2012).
- 7) Electronic methods will save time and resources for the research, making it more feasible to collect a large number of entries for each individual.
- 8) Electronic methods will reduce the likelihood of lost data due to not being able to determine what was written by the participant. This assumption has long been validated in the empirical methodological literature on diaries (e.g. see Hanscom et al., 2002).

1.7 Definition of Key Terminology

Entrepreneurial resilience is understood in disparate ways across entrepreneurial literature (Lee & Wang, 2017). This resilience capacity is multi-dimensional, developmental in nature and deeply affected by social and situational factors (Masten, 2011; Tugade & Fredrickson, 2004). For this dissertation, entrepreneurial resilience is understood from a conceptual integration of entrepreneur's capacity (e.g., Shepherd, 2003; Zhao & Seibert, 2006) to adapt or recover from adversity (e.g., Hayward et al., 2010; Singh & Pavlovich, 2011; Shepherd et al., 2011; Frese & Gielnik, 2014). The present study extends existing entrepreneurial literature towards a developmental and micro-processual conceptualisation of entrepreneurial resilience as it operates for entrepreneurs through daily decision-making and coping strategies.

This dissertation defines 'developmental' as progressive elaboration that occurs for entrepreneurs during venture creation that results from an application of knowledge, skills and techniques to cope with competing demands. This has implications for broader questions about the intrinsic nature of entrepreneurship, including how entrepreneurs balance their emotional needs with the practical challenges of running a successful business (Drnovsek, Örtqvist & Wincent, 2010). Through a lens on microgenesis (see Valsiner, 2000; Wagoner, 2009), entrepreneurs are understood as people who are currently in the process of establishing an enterprise or organisation.

In this dissertation, self-efficacy is conceptualised from extant literature as the degree to which entrepreneurs perceive themselves as capable of produce desired or intended results. The extant literature recognises that entrepreneurs may perceive their own capacity and hold beliefs about whether business performance is due to their own efforts. Additionally, this literature provides propositions that entrepreneurial self-efficacy and performance outcomes may interconnect.

In this dissertation, the intersection of entrepreneurial decision-making processes and coping strategies comprise the primary focus as having a major role and combined effect on the success or failure of entrepreneurs as they face adversity over time in their businesses. Entrepreneurial decision-making is comprised of the plans, reactions and deliberations an entrepreneur must make as they encounter daily entrepreneurial challenges. Entrepreneurial coping strategies are conceptualised as a

process of appraising, responding and managing stress as it emerges in daily life and business activities. In this sense, entrepreneurial coping strategies are a major focus in this dissertation as develops personal and business capacity to exploit knowledge, resources and contingencies to achieve desired results.

This dissertation explores coping strategies as they enter entrepreneurs' decision-making processes for navigating and negotiated setbacks. Stress is defined as a state of mental or emotional strain or tension from adverse or very demanding circumstances, and as something that causes mental strain or worry (Moos & Billings, 1983, p. 214). Stress researchers have conceptualised links between life stress and level of functioning as relationship between an individual's available coping resources (social, cultural and tangible) and their respective context (Moos & Billings, 1983). In this sense, coping responses refer to efforts to manage psychological demands that can strain available resources (e.g., Strutton & Lumpkin, 1992; Helten, Dember, Warm & Matthers, 1999; Hmieleski & Baron, 2009), such as holding optimistic and pessimistic views about future outcomes.

Specifically, this dissertation is focused on three types of coping responses within entrepreneurial decision-making processes as they unfold over time: problem-, emotion- and appraisal-focused. These stem from the idea of resilience as an entrepreneur's ability to adapt to changing and stressful life demands and that coping processes are both interconnected and mutually influential as entrepreneurs navigate the uncertainties and structural challenges of their intertwined personal and professional lives.

Moreover, this dissertation builds on the notion from within entrepreneurship that ineffective management of the various stressful demands in the start-up process will likely have negative impacts on the entrepreneur (Boyd & Gumpert, 1983; Akande, 1994; Singh & Pavlovich, 2011), which then further flow into and impact the business. These aims call for balanced theory development around entrepreneurial resilience. Given the limited empirical research on resilience in entrepreneurship theory literature (Singh & Pavlovich, 2011) this dissertation explores these interconnected concepts.

1.8 Structure of Dissertation

The present chapter has broadly introduced the topic of study, key concepts and described the research problem, purpose statement, and set forth the specific research questions that will be investigated in this thesis. This chapter has also identified the research design and methods and outlined the structure of this dissertation. The remaining chapters in this dissertation are delineated in this section with brief explanations.

Chapter 2 provides a review of extant entrepreneurship literature that situates the present study in previous research and scholarly material pertaining to entrepreneurial resilience. This chapter presents a critical synthesis of literature according to relevant themes that contribute to the conceptualisation of entrepreneurial resilience that may be conducive to empirical research. This literature review is composed of a framework that integrates personal, business and contextual factors as multiple levels and pathways that may impact entrepreneurial performance over time.

Chapter 3 describes and justifies the philosophical traditions relevant to the research methodology undertaken in the present study to explore developmental phenomena that contribute to entrepreneurial resilience, including epistemological and methodological positioning. Additionally, this chapter provides supporting rationale for the research design, sample and data collection strategies for participant recruitment, interviews and diary methods. This chapter offers methods and tools used for case analysis and steps taken in the research approach to improve reliability and mitigate potential weakness in the overall research design.

Chapters 4 - 9 presents within-case findings for six participating entrepreneurs. Findings for each individual case have been developed idiographically, showing how entrepreneurs' stories unfolded within the bounds of each case. Longitudinal analysis focuses on individual-by-individual with a process orientation augmented by personal and business contextual information from semi-structured interviews and diary study methods.

Chapter 10 presents analysis designed to explain variation between multiple cases. This chapter generates a cross-case comparisons and synthesis based on journeys of entrepreneurs and analysis of emerging entrepreneurial phenomena,

including both business and personal dimensions. With multi-case analytic methods, the focus is on commonalities and differences between the individual cases.

Finally, Chapter 11 provides the discussion and conclusion of the thesis. First, it presents an overview of the thesis. Next, this chapter discusses limitations of the present study. Then, this chapter consolidates the empirical findings for within-case and cross-case analyses to provide a basis for addressing this dissertation's research questions. Finally, it concludes with contributions to entrepreneurship, including theoretical, methodological, and practical implications and suggestions for future research.

SECTION 2: LITERATURE REVIEW

CHAPTER 2:LITERATURE REVIEW

2.1 Overview

This chapter provides a review of extant entrepreneurship literature that situates the present study in previous research and scholarly material pertaining to entrepreneurial resilience. This chapter presents a critical synthesis of literature according to relevant themes that contribute to the conceptualisation of entrepreneurial resilience that may be conducive to empirical research (Figure 1). This literature review is composed of a framework that integrates external perceptions, perceived entrepreneurial capacity, and entrepreneurial effectuation as dimensions of performance that develop over time.

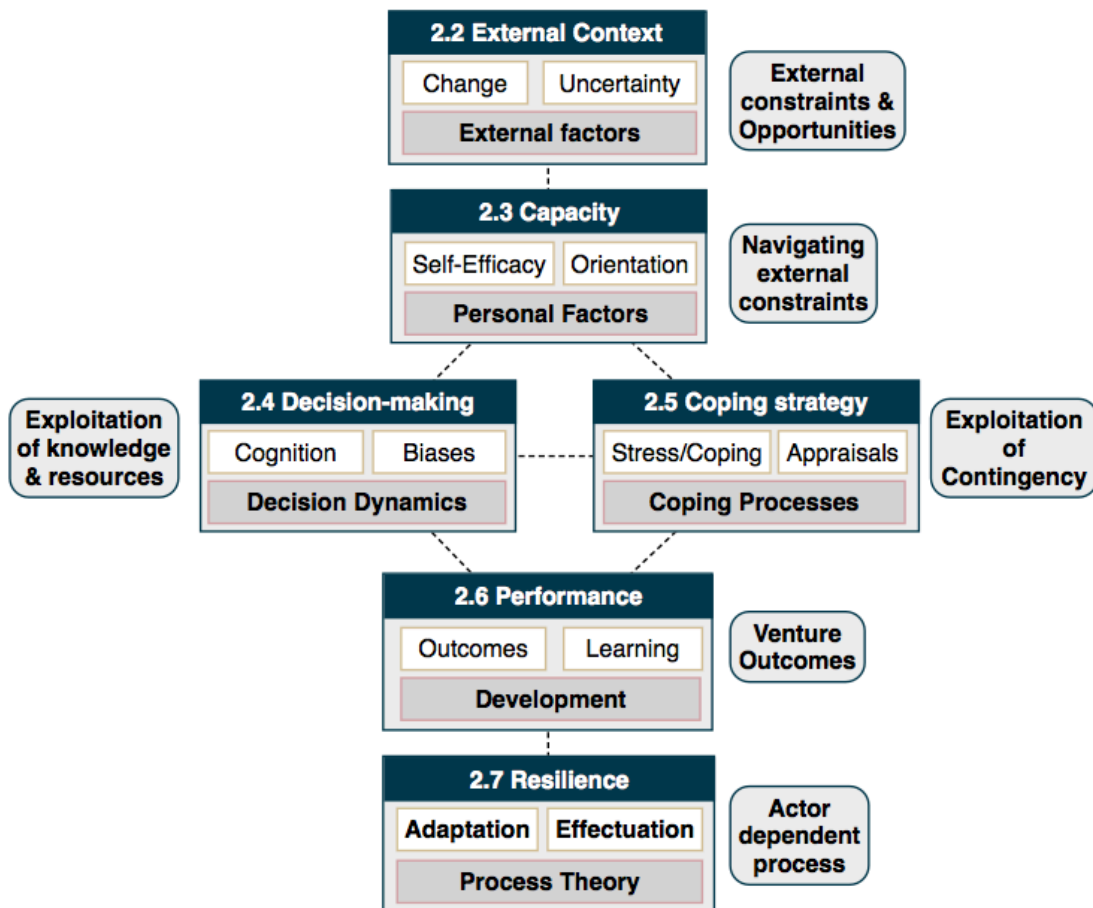


Figure 1. Illustrating concept overview by section

Section 2.2 presents recognition of **external and structural business factors** as a contextual source of emerging challenges, situational extremes, uncertainty and adversity that entrepreneurs face. This literature considers a range of external business factors that may result in challenging contexts. Section 2.3 focuses on **entrepreneurial capacity** and subjective lens that entrepreneurs use when interacting with external-structural factors to engage in venture creation. This literature focuses on self-efficacy, personal factors and unique orientations that drive entrepreneurs to exercise agency and assert their capability.

Section 2.4 focuses **entrepreneurial decision-making** processes as they evolve over time. In prioritising rational models from economics and cognitive science, this literature often considers decision-making biases as epistemic limitations and key drivers of business failure. This dissertation explores entrepreneurial decision-making in relation to efforts to navigate external context while exploiting knowledge and resources. Section 2.5 extends **entrepreneurial coping strategies** for exploring how and why entrepreneurs navigate contingencies, manage stress and respond to setbacks in their ventures. This goes beyond cognitive or structural explanations towards aspects of life history that connect between coping resources, subjective experiences and business outcomes.

Section 2.6 examines **entrepreneurial performance** from historically outcome-driven explanations, such as success and failure, then towards a process-driven lens of microgenesis. This lens concerns how entrepreneurs learn and develop from personal experiences and then bring lessons and insights to their entrepreneurial endeavours to meet demands. Section 2.7 places **entrepreneurial resilience** into the wider framework of adaptive stress management with the aim to bring it closer to an applied science. Entrepreneurial resilience is considered a continuously shaping actor dependent process.

Section 2.8 provides the **conceptual framework** and highlights the need for longitudinal approaches to extend the lens in entrepreneurship theory and practice from the historically outcome-driven explanations to adequately include processual and temporal dimensions and illuminate emerging entrepreneurial phenomena.

2.2 Entrepreneurial External Context

This sub-section presents recognition of external and structural business factors as catalysts for change, contextual source of emerging adversity and situational uncertainty that entrepreneurs must continually navigate. This literature considers a range of external business factors as real and potential drivers that may constrain or open growth. This dissertation explores how opportunity or complexity in external contexts are perceived and navigated by entrepreneurs.

2.2.1 Catalysts for Change

This exploration starts with extant literature that recognises external, environmental and structural factors as either stabilising or catalysing changes in entrepreneurship. In order to centralise focus for the domain of entrepreneurship (Bruyat & Julien, 2001), scholars now generally agree that ‘creation’ (of ventures and organisations, goods and services) is the unifying purpose and the fundamental characteristic of research for the field (Vesper, 1982; Low, 2001; Brush et al, 2003). Certainly, whether or not macroconditions are adverse (e.g., Zahra & Neubaum, 1998) could depend on particular configurations of competition, living conditions, changes in technology, marketplace preferences or life cycles of industry. Indeed, macro level approaches focus on ‘environmental factors’ that are often beyond direct control of individuals, thereby shaping or constraining behaviour (Osborne, 1993). Scholars have referred to complex environments as more difficult for entrepreneurs to comprehend (Aldrich & Wiedenmayer, 1993; Baum et al., 2001). This is important for this dissertation because complex external contexts may constrain how entrepreneurs perceive and navigate opportunity.

As such, macro factors are often emphasised by economists (e.g., Eckhardt & Shane, 2003; Shaver, 1995; Hisrich, et al 2007) and this is reflected in research contributing to entrepreneurial activity around marketplace behaviour or ‘demand side’ factors (Lafuente & Salas, 1989). While demand side factors help to provide ‘stimuli’ that act as barriers or

triggers for entrepreneurial activity by influencing potential opportunities, it is argued that opportunities must be recognised and exploited by potential entrepreneurs on the ‘supply side’ (Lafuente & Salas, 1989; Hisrich et al., 2007). Extant literature has supported the notion that contextual sources of challenges may facilitate real and perceived barriers and triggers to entrepreneurial action (Lafuente & Salas, 1989; Hisrich et al., 2007). In this way, entrepreneurship literature supports a conceptualisation of macro level and structural factors as exigencies that ‘push’ or ‘pull’ entrepreneurial action (Shapiro, 1975) and influence entrepreneurs’ general perception of the factors outside of the business. Indeed, micro level factors tend to regard actions of entrepreneurs or businesses, along with psychological and social factors such as practices, motivations or preferences. For the purpose of this dissertation, the contextual layer is explored as the sum of essential personal, business and environmental factors that impact entrepreneurial performance (Mischel, 1968; Hitt et al., 2007; Hmieleski & Baron, 2009; Drnovsek et al., 2010; Baron, 2013).

Schumpeter (1934) initially identified a prominent feature of entrepreneurship activity, which he described as ‘disruptive change’. The popularisation of this idea gained support from the notion of individuals as those who respond to the unpredictable nature of a market. Extant literature within entrepreneurship suggests that whether or not opportunities are discovered and exploited by entrepreneurs, depend first, on entrepreneurs’ information being sufficient to identify opportunities (Kirzner, 1997; Shane, 2000) and second, on entrepreneurs’ cognitive capabilities to envision and match the exploitation requirements of the opportunities identified (Shane & Venkataraman, 2000). For example, assessments of opportunities (Kirzner, 1997; Pittaway, 2000) may change based on the business, economic or larger environmental conditions (Onetti et al. 2010). Indeed, Pittaway (2000) argues that many theories of entrepreneurship depend on opportunity recognition (e.g., Kirzner, 1980; 1982) as a focus on structural changes, whereby disequilibrium and inefficiencies between supply and demand may contribute to an entrepreneurs’ discovery of commercial solutions. This dissertation explores how dynamic drivers for change and stability connect to entrepreneurs’ perceptions of complexity and uncertainty.

2.2.2 Complexity and Uncertainty

Aldrich and Wiedenmayer (1993) have referred to complex environments as difficult for entrepreneurs to comprehend. In prior research, uncertainty has been negatively correlated with sales growth (e.g., Dess, Lumpkin, & Covin, 1997). While external factors may hinder an entrepreneur's propensity to start a new endeavour, as an innovation or venture develops, risk factors can arise both from within and outside the venture that can change business progress (Shepherd, Douglas, & Shanley, 2000). Therefore, dynamic environments have been connected to the tendency for entrepreneurs to produce start-ups that rapidly develop and connect further to entrepreneurs' urgency to perform (Baum, Lock & Smith, 2001; Baum, 2004). Following theoretical rationale, within an 'environment dominated by continual and rapid changes' (Onetti et al., 2010, p.363), product innovation from competitors may render resources obsolete (Wiklund & Shephard, 2005).

This dissertation explores external-structural factors as continuously emerging. In this regard, dynamic and unpredictable environments have been suggested to make the value of physical and technological resources more uncertain (Wiklund & Shephard, 2005). Furthermore, outcomes of entrepreneurial endeavours have been considered both unknown and unknowable (Knight, 2002). For example, when nascent entrepreneurs are introducing new products, services, business practices (Morris, Richardson & Allen, 2006) or new business models (Costa, 2014), it is usually not possible to accurately foresee the outcomes of such key decisions (Lichtenstein, Carter, Dooley, & Gartner, 2007). Where the nature of entrepreneurship entails high levels of inherent uncertainty (Baum, Lock & Smith, 2001; Baum, 2004), entrepreneurs themselves become the 'bearers' of risk (Venkataraman, 1997). As such, scholars have suggested that entrepreneurial orientations show risk-taking propensity (Stewart & Roth, 2004a; Wiklund & Shepherd, 2005; Rauch & Frese, 2007) as they make decisions based on uncertain situations and ambiguous information. Baum et al. (2001) have argued that stable environments relate positively to venture growth. This dynamic nature of external-structural factors is important for understanding how entrepreneurs perceive and navigate complex and uncertain structural challenges.

2.2.3 External-Structural Factors

External-structural factors may lead to adverse conditions if entrepreneurs and their venture cannot handle challenges correctly. Lumpkin and Dess (1996) present their conceptual model with internal and external factors to the firm that may moderate the relationship between an entrepreneurs' orientation and performance (Shaver & Scott, 1991; Corner et al., 2017). This is supported by argumentation that business challenges may be both uniquely personal and general to the venture creation process (Moroz & Hindle, 2013). A broad perspective includes consideration of the surrounding environment as entrepreneurs navigate uncertainties to determine the direction of their innovation or venture and bring about future economic possibilities within an uncertain business climate. This deals with business factors that might explain how and why new ventures are formed, succeed or fail (e.g., Zacharakis, Meyer, & DeCastro, 1999). For these reasons, external factors are explored in this dissertation as contextual-drivers for constraints or opportunities.

A longstanding debate within the field, whereby venture growth or decline might be attributable, has been to an environmental determinism (Whittington, 1988). Scholars have extended population ecology into entrepreneurship theory as a way to explain how certain macroconditions can act as selection processes on entrepreneurs, innovations and ventures (Aldrich, 1979; Aldrich & Wiedenmayer, 1993; Aldrich & Martinez, 2001; Smith & Cao, 2007). The value of different resources is expected to vary across environmental contexts (Wiklund & Shephard, 2005). Scholars have suggested that unfavourable environments (e.g., decreasing demands, high competition) may constrain the expression of individual differences; however, favourable environments (e.g., growing markets and demands) may allow the expression of individual traits. For example, owners with a high need for achievement may be able to pursue more opportunities than owners with a low need for achievement (Rauch & Frese, 2007). Baum et al. (2001) have presented suppositions that stable environments relate positively to venture growth.

Scholars often refer to structural and individual factors involved in venture growth and decline which may “coalesce at the same time” (Barker, 2005, p. 44; also see Gaskill, Van Auken, & Manning, 1993; Zacharakis, Meyer, & DeCastro, 1999). This results in entrepreneurship literature having both acknowledged and explored entrepreneurial experiences within an overarching context of uncertainty (Baum, 2004; Baum, Lock & Smith, 2001). Different dimensions of uncertainty (Frese et al., 2014; Haynie & Shepherd, 2009) have been considered in this literature as contributing to entrepreneurs’ perception of instability and change (Dess & Beard, 1984; Baum et al., 2001). In many ways, this dissertation explores entrepreneurial capacity to recognise the relevance of external business factors for their respective businesses.

2.3 Entrepreneurial Capacity

This sub-section focuses on the entrepreneurs’ capacity and subjective lens that entrepreneurs use when interacting with external, constraining factors in the environment to engage in venture creation. This literature focuses on entrepreneurs’ self-efficacy, personal factors and unique orientations to exercise agency and assert their capability. This dissertation explores entrepreneurial capacity to perceive and navigate within an existing set of circumstances.

2.3.1 Entrepreneurial Self-efficacy

The extant literature recognises that entrepreneurs may perceive their own capacity and hold beliefs about whether business performance is due to their own efforts. The concept of entrepreneurial self-efficacy has been proposed as the degree to which entrepreneurs may perceive themselves as capable of produce desired or intended results (Chen, Greene, & Crick, 1998; Forbes, 2005). For example, a general concept of self-efficacy has been related to business creation (Rauch & Frese, 2007) and confidence in their ability to perform tasks in uncertain situations (Baum & Locke, 2004). In entrepreneurship, self-efficacy has been defined as the degree to which entrepreneurs believe in their ability to perform tasks associated with new ventures (Forbes, 2005).

Researchers have found that entrepreneurs' self-efficacy (Baum et al., 2001) relates to performance (Chandler & Janson, 1992) as belief in their ability to start and grow ventures. This research has suggested that entrepreneurs who believe in their abilities are more likely to handle challenges when they arise. Indeed, a longstanding psychological principle (Lewin, 1938) is that actions are impacted by beliefs about probable outcomes.

Additionally, this literature provides propositions that entrepreneurial self-efficacy and performance outcomes may interconnect. These propositions for entrepreneurial self-efficacy borrow extensively from Bandura (1977, 1982, 1986, 1997). For example, Bandura (1977, 1986) noted that individuals must believe that they can successfully accomplish a task in order for them to engage in active efforts to master that task. These beliefs are then shaped by successfully performed behaviours (Bandura, 1977, 1982). Wood and Bandura (1989) argue that self-efficacy beliefs are primarily shaped by personal experience and denote "beliefs in one's capabilities to mobilise the motivation, cognitive resources, and courses of action needed to meet given situational demands" (p. 408). This research has suggested that individuals who believe in their abilities are more likely to handle challenges when they arise (Bandura, 1982). To this extent, Bandura (1997) argued that self-efficacy exists in a "causally reciprocal" relationship with behaviour and the environment. Furthermore, self-efficacy refers to conscious belief in an individuals' own ability to bring about desired results in the performance of a particular task (Bandura, 1997; Forbes, 2005). The notion is that 'generalised expectations' may be formed as beliefs around a problem which then play a role in determining outcomes (e.g., Strutton & Lumpkin, 1992; Helten et al., 1999; Hmieleski & Baron, 2009), such as holding optimistic and pessimistic views about the anticipated future.

While Chen et al. (1998) suggest that self-efficacy may be used to predict performance at an individual level, they further report dependence on both tasks and personal characteristics. Research by Bullough et al. (2013) on whether or not entrepreneurs can learn self-efficacy resulted in their conclusion that specific personal factors mattered greatly for the pursuit of entrepreneurship, especially during periods of adversity. This dissertation explores entrepreneurial capacity through this notion of belief or appraisal that performance may be due to their own efforts.

2.3.2 Entrepreneurial Personal Factors

This rationale connects to early scholarly effort in entrepreneurship to examine a wide range of personal factors in relation to venture creation. Early research (1961 to 1990) attempted to isolate personal factors and personality characteristics that entrepreneurs possess that may separate them from non-entrepreneurs (Begley & Boyd, 1987; Baron, 1998; Davidsson, 2007). Baum and Locke (2004) explains that prior inquiry attempted to identify numerous generalisable personal factors and personality characteristics. On this basis, scholars suggested innate and stable personal factors that could predispose entrepreneurs for success in business ventures. In-line with trait theory, the role of environmental structures was less emphasised compared to innate personal capabilities (Gartner, 1989).

However, this line of prior inquiry found weak effects (e.g., Aldrich & Wiedenmayer, 1993) and inconsistent and contradictory results (e.g., Low & Macmillan, 1988; Aldrich & Wiedenmayer, 1993). Gartner (1989) concluded this prior inquiry from narrative review: “I believe that a focus on the traits and personality characteristics of entrepreneurs will never lead us to a definition of the entrepreneur nor help us to understand the phenomenon of entrepreneurship” (p. 48). From concern for over-personalising entrepreneurial outcomes, Gartner’s (1989) review subsequently shifted discourse and inquiry away from straightforward personality-based explanations for entrepreneurial behaviour (e.g., Hornaday & Aboud, 1971; Rauch & Frese, 2007; Krueger, 2008). This inquiry instead shifted towards understanding *what entrepreneurs do* to attain their business vision (e.g., Gartner, 1989; Timmons, 1989; Van Gelderen, 2014). At individual levels, researchers also shifted inquiry towards cognitive factors (see Shaver & Scott, 1991; Baron, 1998) that involve opportunity recognition and alertness (Kirzner, 1997; Venkataraman, 1997; Krueger, 2000) or judgment (Casson, 1982) that may guide entrepreneurs through opportunities.

It is important for this dissertation to highlight explanations from the literature for why these earlier inquiries of personal factors and traits may have been unfruitful (see Rauch & Frese, 2000; Rauch & Frese, 2007; Baum, Frese, Baron & Katz, 2013; Frese &

Gielnik, 2014). Indeed, Baum et al. (2013) provide cogent explanations about varying degrees of success in these earlier inquiries: the primary reason they offer is that individual-level causal factors explored had lacked strong theoretical foundations. Instead, they assert that researchers needlessly restricted the scope of variables to aspects of personality, such as achievement motivation (e.g., McClelland, 1961), locus of control (e.g., Rotter, 1966; Begley & Boyd, 1987) or need for power (e.g., Casson, 1982; Roper, 1998), and optimism (e.g., Strutton & Lumpkin, 1992). Indeed, Strutton and Lumpkin (1992) provide a clear picture that discussion of effects from any single personality trait will inherently represent an oversimplification of how personal factors relate and contribute to outcomes for a given entrepreneurial venture. This dissertation explores personal factors as aspects of life history that bring to light entrepreneurial orientations to their respective businesses.

2.3.3 Entrepreneurial Orientation

The extant literature recognises that entrepreneurs are in some ways at the mercy of external-structural factors beyond their control; however, some entrepreneurs may have unique orientations that drive them to exercise agency and assert their capability. In early scholarly effort, Schumpeter (1934) proposed that individuals, when sufficiently oriented to challenges, had the power to identify and market technological innovations that could ultimately change the direction of society. To build an understanding of innovation, discourse in entrepreneurship has concentrated at times on observations of individuals as actors or entrepreneurs as agents influencing broader economic changes (Schumpeter, 1934; Shaver & Scott, 1991; Baum, et al., 2013). For example, Baron (1998) argues that entrepreneurs may be oriented to use distinctive ways of thinking and behaving that could benefit the economy if more widely spread. As such, scholars have continued to point to a positive relationship between an ‘entrepreneurial orientation’ and businesses outcomes (e.g., Wiklund, 1999; Zahra, 1991; Zahra & Covin, 1995; Dai, Gilbert & Fernhaber, 2014). With this reconsideration of various personal factors, entrepreneurship scholars have suggested three dimensions that can be integrated into such an entrepreneurial orientation: Innovativeness, Proactiveness and Risk taking (see

Table 3):

Table 1. Dimensions entrepreneurial orientation

Innovativeness	Proactiveness	Risk taking
Willing to innovate, try new ideas or uncertain products, depart from established practices or technologies.	Anticipating and acting on future wants and needs in the marketplace. Desire to capitalise on emerging opportunities.	Willingness to commit more resources to projects where cost of failure may be high or outcomes unknown.

Source: Wiklund & Shepherd (2005)

Furthermore, Wiklund and Shepherd (2005) suggest that these three dimensions of entrepreneurial orientation may explain entrepreneur's ability to influence or improve business performance. However, earlier scholars presented findings (Smart & Conant, 1994) that contest these assertions and point to opposite results. Indeed, these same dimensions may also associate with poor performance (Hart, 1992). Thus, while 'entrepreneurial orientation' as described by Wiklund and Shepherd (2005) may relate to entrepreneurs' propensity to start a new venture, as innovations and ventures develop, risk factors may arise from these same orientations. For this reason, proponents of 'entrepreneurial orientation' may be overlooking causal mechanisms that shape how this plays out differently in the lead up to business creation and then unfold for entrepreneurs in their respective business contexts. This dissertation explores self-efficacy, personal factors and orientations that may be relevant to entrepreneurial capability.

2.4 Entrepreneurial Decision Making

This sub-section focuses on entrepreneurial decision-making and cognition as they evolve over time. In prioritising rational models from economics and cognitive science, this literature often considers decision-making biases as epistemic limitations and key drivers of business failure. However, an overall lack of inquiry into relevant aspects of

life history may limit explanatory value of biases and heuristics in relation to business progress. This dissertation explores entrepreneurial decision-making in relation to efforts to navigate external context while exploiting knowledge and resources.

2.4.1 Entrepreneurial Cognition

This extant literature in entrepreneurship has often prioritised rational models from economics and cognitive sciences to explain intentions, structural awareness and business outcomes. Bernard and Barbosa (2016) note that prior studies focused on decisions to engage in entrepreneurship have tended to adopt either socio-economic lenses of identifying “push” and “pull” factors in their decisions (e.g., Delmar & Wennberg, 2010; Thornton, 1999) or cognitive psychology lenses focused on opportunity and risk perception (Baron, 2004; Busenitz & Barney, 1997; Grégoire et al., 2010; Mitchell, Thompson, Peterson, & Cronk, 1997). These considerations in the literature have been concerned with whether entrepreneurs have information necessary to discover or identify opportunities (Kirzner, 1997; Shane, 2000; Gartner, Shaver & Liao, 2008; Dimov, 2010). However, entrepreneurs may find complex environments difficult to comprehend (Aldrich and Wiedenmayer, 1993; Bennet & Bennet, 2004) and navigate effectively. This literature is distinctive as seeking to explain business effects as a result of entrepreneurs’ varied capacity in information processing, intentions, and structural awareness.

Prior research points to cognitive factors that may influence whether or not opportunities, knowledge and resources are discovered and exploited by entrepreneurs. Indeed, inquiry has been centred on entrepreneur’s cognitive capacity as being necessary to envision the exploitation of opportunities identified (Shane & Venkataraman, 2000). Along this strand of research, Shaver and Scott (1991) suggest that researchers should orient to differences in entrepreneurs based on their cognitive abilities. This strand of research has also attempted to show differences between entrepreneurs and other people (Baron, 1998) to clarify why entrepreneurs see opportunities where others do not (Venkataraman, 1997; Krueger, 2000).

Scholars further suggest that entrepreneurs may have a propensity to assess general business opportunities more favourably (Palich & Bagby, 1995) and may therefore be overly optimistic about the value of opportunities (Shane & Venkataram, 2000) compared to non-entrepreneurs or managers (Baron, 1998; Baum et al., 2001; Collins et al., 2004; Rauch & Frese, 2007). These efforts to explain characteristic differences in cognitive capacity ultimately connects to scholarship on decision-making psychology (Tversky & Kahneman, 1974; MacMillan & Katz, 1992; Busenitz, & Barney, 1997; Baron, 1998; Simon et al., 1999). This dissertation explores cognitive capacity in connection with decision-making processes as entrepreneurs navigate uncertainties and structural challenges.

2.4.2 Entrepreneurial Decision Biases

This dissertation explores decision biases as an epistemic component of entrepreneurial capacity to exploit knowledge and resources. However, entrepreneurship discourse has historically imported assumptions from macroeconomics, such as viewing entrepreneurs as rational-economic beings (e.g., Barreto, 1989; Simon et al., 1999). Indeed, microeconomics has too often assumed that business entities make rational choices to improve profit and reduce waste because it does not suffer from the fallibility of human error (e.g., Pittaway, 2000). This logic extends further to an individual-level, in that entrepreneurs may suffer from epistemic limitations (c.f. bounded rationality) or problems with information processing (Abelson & Levy, 1985; Mishra, 2014) that then result in negative consequences. For example, entrepreneurs with insufficient source discrimination or limited time may be unable to follow rational decision-making models (Tversky & Kahneman, 1974; Simon, 1979) assumed under classical economics. From this standpoint, decision biases have been explored as undermining entrepreneurial outcomes, with special emphasis on negative effects at a business-level.

Decision biases have been commonly characterised as entrepreneurs' subjective or pre-disposed opinions that may emanate from specific heuristics (Bazerman, 1990; Busenitz & Lau 1996). Heuristics, in this sense, are considered as a tendency for entrepreneurs to use shortcuts in thinking based on past experience (Mishra, 2014). When

these heuristics also lead to errors, entrepreneurs may develop a pattern of behaviour based on biased decisions (Tversky & Kahneman, 1974). This is comparable to arguments in the literature that entrepreneurs may eventually suffer from "executive limits" when their ability to lead their own firm becomes hurtful to their interests (Zacharakis et al., 1999). Extensive use of heuristics in challenging situations (Manimala, 1992a) may lead to planning fallacy, overconfidence (e.g., Busenitz & Barney, 1997) an illusion of control (Simon et al., 1999), which are understood as entrepreneurs' tendency to believe they are capable of resolving situations that fall outside of their control (Bazerman, 2001). In situations when venture failures have occurred, Beaver (2003) attribute the primary cause to factors within the firm, such as poor management. Continuation of this logic implies that entrepreneurs may also become trapped by repeating the same problematic patterns of business management when overcoming problems.

The prominent focus from this extant literature has been on differences in cognitive biases and errors in judgment (Casson, 1982; Casulli, 2011) or in thought (e.g., Busenitz & Barney, 1997; Simon et al., 1999) that contribute to irrational decisions and thereby result in negative consequences for entrepreneurs (Tversky & Kahneman, 1974; Rezvani, Nouri & Ahmadi, 2013). Such biases have been discussed extensively in entrepreneurship literature along with assertions that negative outcomes are predominantly attributed to epistemic limitations or knowledge-related gaps. Indeed, these assertions often focus on explaining why entrepreneurs may be more successful than others in these cognitive activities (e.g., Baron, 1998). Baron (2007) clarifies that entrepreneurs may be prone to increased risk of becoming victims of detrimental biases that negatively impact their decision-making. Choo (2008) argues that decision biases have been attributed to blind spots (warning signals are ignored) and denial (warning signs are not believed) which influence an entrepreneur's interpretation of various factors. This will likely depend on entrepreneurs' role in their business, personal stake and degree of effort and involvement (e.g., Reynolds, 2007) in the running of their businesses. These concepts are extended in this dissertation towards exploring the precursors and consequences of decisions as entrepreneurs exploit knowledge and resources to navigate external challenges.

2.4.3 Entrepreneurial Decision Dynamics

This extant literature builds a picture of decision biases, as epistemic limitations, that may form and then impact businesses performance. Following theoretical rationale, Minniti and Bygrave (2001) point to dynamism between entrepreneurs, their contexts and business performance. Within an ‘environment dominated by continual and rapid changes’ (Onetti et al., 2010, p. 363) entrepreneurs may perceive an urgency to perform (Baum, Lock & Smith, 2001; Baum, 2004). For example, product innovation from competitors may render resources obsolete (Wiklund & Shephard, 2005). Scholars suggest that entrepreneurs who are close to their business or heavily involved may feel pressure to make rushed decisions (e.g., Smith, Gannon, Grimm, & Mitchell, 1988), thereby preventing them from “applying a comprehensive process to their decisions because they are pressed to make decisions quickly on the spot” (p. 231). However, entrepreneurs have been shown to delay decisions until more information is present or until more time is available for problem analysis (Loasby, 1998). For these reasons, this dissertation explores the tendency for entrepreneurs to make rushed decisions.

Beyond Sarasvathy’s (2001) articulation of ‘effectuation’ process, temporal dimensions of decision-making have needed further elaboration in the existing literature. While improved models may approach more systems-related perspectives on decision making (Bennet & Bennet, 2004) or a more well-rounded conceptualisation that includes temporal-orientation (Bird & West, 1997; McMullen & Dimov, 2013), these models remain focused on characterising entrepreneurs’ rationality in relation to higher-order capacity and functioning, such as effect-based heuristics (Sarasvathy, 2001), risk perception (e.g., Baron, 2004; Grégoire et al., 2010; Dewald & Bowen, 2010) or opportunity discovery (e.g., Kirzner, 1997; Shane, 2000; Gartner et al., 2008; Dimov, 2010). Furthermore, most improved models of decision-making still do not include empirical testing of cognitive or process-oriented dimensions that might foreground the formative nature of decision biases and performance impacts. Without empirical evidence, these models may continue to fall short in explanatory value compared to models that prioritise learning and development perspectives.

Elaborating further on decision biases, where an observer from the outside would appraise the situation negatively, the entrepreneur might instead perceive it positively. Krueger (2008) posits that intentions ‘are still the best predictor of entrepreneurial behaviour’, yet he ponders whether the failure of an intention to be realised reflects a barrier to action. Indeed, ‘barriers to action’ in entrepreneurship are important for cognitive models of intention to consider. Cardon et al. (2009) point to a ‘motivational effect’ that can stimulate entrepreneurs to overcome obstacles and remain engaged (p. 512). Entrepreneurs are also known to persist despite considerable obstacles (Holland & Shepherd, 2011). This sequence in decision-making reflects a decision bias which may be useful depending on situational conditions (Louis & Sutton, 1991). In this regard, epistemic limitations may actually provide a necessary precursor to improved capacity in problem analysis as entrepreneurs navigate challenges and exploit knowledge.

Further decision dynamics are highlighted in the literature that may contribute to entrepreneurial capability to face or avoid challenges. Research on the effect of fear of failure on cognitive processes (e.g., Hayton et al., 2013) has been explored as an inhibitory antecedent to entrepreneurial action. For these reasons, entrepreneurs may make decisions to avoid emotional pain. Thus, the significance of emotion (Jennings et al., 2015) may lead entrepreneurs to business decisions more out of fear of failure (Hayton et al., 2013) than cognitively rational perspectives (Baron, 2014). Hayton et al. (2013) propose a model with five themes for fear of failure around personal ability, self and social esteem, and potential of ideas. This model indicates broad constructs, such as sources of threats, affective information, traits, experiences, support, ability, response strategies, and entrepreneurial action and outcome. However, if fear is relevant to this model, then so is courage and a range of positive emotions (e.g., Shaver & Scott, 1991, p. 26; Cardon et al., 2009) by showing how individuals may act despite the presence or absence of fear. Accordingly, Cacciotti and Hayton (2015) present the possibility that fear of failure may be ‘a force for good’, as entrepreneurs may feel motivation to give attention or maintain the energy to handle business challenges (Cardon et al., 2009). This dissertation explores aspects of life history that impact entrepreneurs’ decisions and capability to exploit knowledge and resources to navigate external challenges.

2.5 Entrepreneurial Coping Strategies

This sub-section extends beyond cognitive or structural explanations towards aspects of life history that may connect coping resources to subjective experiences and business outcomes. This literature illustrates the importance of coping strategies that will operate in ways that are interconnected and mutually influential as entrepreneurs navigate contingencies, manage stress and respond to setbacks in their ventures. In this dissertation, coping strategies are conceptualised as entrepreneurs' means for processing, managing and resolving business-related stress.

2.5.1 Entrepreneurial Coping

This extant literature regards how entrepreneurs respond to stressful situations and unfavourable outcomes. Indeed, scholars have suggested that research should address the impact of situational conditions on performance outcomes (Endler & Magnusson, 1977). Stress has been defined as a 'state of mental or emotional strain', as 'tension from adverse or demanding circumstances', and as 'factors that cause mental strain or worry' (Moos & Billings, 1983, p. 214). Stress researchers have conceptualised links between life stress and level of functioning as relationship between an individual's available coping resources (social, cultural and tangible) and their respective context (Moos & Billings, 1983). While a sense of personal agency is important for negotiating adversity, availability of resources is also important. These resources may impact the appraisal of threat implied by an event, as well as the choice, sequence, and relative effectiveness of a coping response (Moos & Billings, 1983, p. 214). Prior research indicates that individuals with psychological difficulties may also lack personal, social and external resources available to protect them from stress (Werner, 2001). In this sense, coping responses refer to efforts to manage psychological demands that can strain available resources (e.g., Strutton & Lumpkin, 1992). This dissertation explores entrepreneurs' subjective experiences of stress that may connect to aspects of life history, available resources and coping strategies.

Coping strategies are considered an array of covert and overt behaviours by which individuals can actively prevent, alleviate, or respond to stress (McGrath, 1970). Several attempts have been made to classify coping strategies (Lazarus & Launier, 1978; Moos, 1976) into three domains according to primary focus (see Table 2):

Table 2. Classification of coping strategies

Coping strategy	Description	Strategies
Problem-focused	Dealing with reality of situations	Seek to modify or eliminate sources of stress Deal with tangible consequences of problems Actively change self to develop satisfying situations or outcomes, includes learning skills or enhance independence
Emotion-focused	Handling emotions aroused by situations	Primary function of responses to manage emotions aroused by stressors and thereby maintain affective equilibrium
Appraisal-focused	Appraising or reappraising situation	Involves attempts to define meaning of situations or outcomes, includes logical analysis and redefinition

However, these coping strategies may not be mutually exclusive, thus classification may represent oversimplifications compared to how these strategies interconnect and unfold. Indeed, research shows that appraisal-, problem- and emotion-focused coping strategies may be quite closely aligned (Lazarus & Launier, 1978; Dewe & Guest, 1990; see Appendix G. Coping strategies and responses). For example, appraisal-focused coping responses can be directed at either *instrumental* (i.e., relating to aims) or *affective* (i.e., relating to moods, feelings and attitudes) aspects of situations or outcomes (or both). Likewise, problem-focused coping responses can be used to deal with emotions aroused by situations or outcomes; that is, entrepreneurs who direct their attention to either gaining business skills in marketing (i.e., instrumental) may be doing so to reduce worry about future sales or seeking business or personal advice to generate emotional support (i.e., affective). Additionally, emotion-focused coping responses may involve psychological resources necessary to handle either problems or appraisals of problems; that is, engaging in meditation to reduce anxiety about future problems and expressing concerns may elicit necessary social support or additional coping resources. In this way, complete pictures of entrepreneurial coping strategies may be more complex, multi-faceted and developmental than previously been identified in extant literature.

This literature illustrates the importance of coping strategies that may influence entrepreneurs' ability to navigate contingencies, manage stress and respond to setbacks in their ventures. Research has shown that entrepreneurs in new and small firms often improvise and 'muddle-through' (e.g., Covin & Slevin, 1989; Yan & Manolova, 1998), with 'strategy' typically being emergent and 'strategic vision' being demonstrated more as strategic planning (Gibb & Scott, 1985). In a sample of owners and managers, both with failed ventures and operations approaching failure, Williams (1985) found varying relationships between stress and business performance at different points along the path to failure. This research showed that levels of stress prior to business failure were significantly higher than after failure. Indeed, entrepreneurs may only adopt and commit to strategies that they believe are achievable (Herron & Robinson, 1993; Covin & Slevin, 1997). This connects to strategic choice (Whittington, 1988) as an explanation for how entrepreneurs may develop their organisations and influence their environments. For example, Baum et al. (2001) found that environment affected venture growth through its impact upon strategy. In this dissertation, entrepreneurial coping strategies are explored as a means for appraising, managing or resolving business-related stress.

2.5.2 Entrepreneurial Appraisals

Prior research focus on appraisals as involving interpretation of the meaning and the significance of an event. In line with Lazarus (1966) suggests that appraisals play a role in the transaction between a person and event, as determining how potentially stressful environment is perceived (Holroyd & Lazarus, 1982). In this model, an emotional response begins with appraisal of the personal significance of an event (Lazarus, 1991; Scherer, 1984; Smith & Ellsworth, 1985). This, in turn gives rise to an emotional response involving subjective experience and behaviour (Mauss & Robinson, 2009). This dissertation explores entrepreneurial appraisals as particularly relevant to decision-making for whether intentions, actions and outcomes are attainable.

This extant literature recognises entrepreneurial appraisals that may connect, arise or unfold from assessments of personal or business situations. Shapero (1975) suggests that entrepreneurs' assessments of events are an important facilitator (or inhibitor) of

entrepreneurial actions. Indeed, meaning attributed to entrepreneurial events may be based on implied personal, emotional or social significance (Byrne, 2013). Hayton et al. (2013) bring attention to external threats or cues that appear to be the subject of appraisals that then lead to fear perceptions and responses, including expectancy and affective states that influenced entrepreneurial motivation (e.g., McClelland, 1961). More specifically, Hayton et al. (2013, p. 3) highlight that subjective appraisals may lead to fear perceptions and negative consequences for entrepreneur's motivations, reactions, decisions, health or overall well-being. Research on emotional significance has recently extended this theorising on antecedents and consequences towards problems entrepreneurs encounter (Cope, 2011; Jennings, Edwards, Devereaux, & Delbridge, 2015). Responses may depend on emotional significance (Jennings et al., 2015) whereas effects may depend on entrepreneurs' response (Cope, 2011). As such, this dissertation explores appraisals, meaning-making and interpretations as comprising a key linchpin in understanding the entrepreneurial process.

2.5.3 Coping Processes

The assessments of coping and its effectiveness have been focused around three main issues (Cohen & Lazarus, 1979): identifying domains of coping processes, evaluating the cross-situational consistency of coping, and specifying the connection between coping processes and adaptational outcomes. Additionally, Feder et al. (2009) suggest that facing fears may promote active coping strategies such as planning and problem solving.

The affective component of failure, as a theme in entrepreneurship literature, has focused centrally on understanding failure effects. Moreover, it has long been understood that failure-related concerns can affect entrepreneurs' responses to entrepreneurial opportunities (Shapiro, 1975). Emphasis on the role of emotion is observed more prominently when entrepreneurs face adverse circumstances, such as situational extremes involving complexity, uncertainty, personal, business or financial anxiety, resource scarcity, and time-related urgency (Busenitz & Barney, 1997; Baum, Lock & Smith, 2001; Baum, 2004; Drnovsek et al., 2010). These conditions become far more salient to

entrepreneurs when there is a perceived risk and significant potential cost of failure (Coelho & McClure, 2005; Shepherd, 2003, 2004). In many ways, entrepreneurs' experience of failure may be equivalent to their experience of loss (Shepherd, 2003). However, the effects of failure often depend on the emotional significance that entrepreneurs derive from their experiences (e.g., Shepherd, 2003; Singh et al., 2007; Cope, 2011; Jennings et al., 2015).

This research may indicate that entrepreneurs' responses (actions), strategies and resulting knowledge gains improve probabilities of success in future entrepreneurial endeavours (Minniti & Bygrave 2001). Indeed, strategic responses in new and small firms are indicated as part of an ongoing learning process, during which entrepreneurs interpret their behaviour (Taylor & Thorpe, 2004). Moreover, scholars suggest that coping styles engaged in by failing entrepreneurs may connect to learning outcomes (Singh et al., 2007). Hayton et al. (2013) bring attention to the importance of coping response strategies used by entrepreneurs when encountering adversity. As such, entrepreneurial coping strategies may help explain how entrepreneurial journeys unfold for entrepreneurs over time (Shaver & Scott, 1991; McMullen & Dimov, 2013; Corner et al., 2017). This dissertation explores entrepreneurial coping strategies used to deal with problems or emotions that arise throughout the entrepreneurial journey.

2.6 Entrepreneurial Performance

This sub-section is informed by highlighting entrepreneurial performance from historically outcome-driven explanations, such as success and failure, then towards a process-driven lens of microgenesis. This lens concerns how entrepreneurs learn and develop from personal experiences and then bring lessons and insights to their entrepreneurial endeavours to meet demands. This dissertation explores business performance as entrepreneurs' overall sense of satisfaction with business progress.

2.6.1 Entrepreneurial Outcomes

Extant literature has historically offered outcome-driven explanations, such as success and failure, linked to overall business performance. However, entrepreneurs do not know *a priori* the outcomes of events and activities (Van de Ven, 1992). To capture different aspects of small business performance in previous studies, proxies for performance have involved either financial or non-financial measurements. Researchers have tended to regard sales growth (Brush & VanderWerf, 1992; Chandler & Hanks, 1993; Tsai, MacMillan & Low, 1991) and profitability (Dess et al., 1997) as drivers for performance. However, there may be reasons to believe that entrepreneurs will not be equally satisfied with the same level of financial performance (Chandler & Hanks, 1993). In this sense, non-financial measures of performance may be a proxy of entrepreneurs' sense of business progress (Davidsson, 2007; Dej, 2010). This raises doubts in discourse for what extent objective measures of performance reflect entrepreneurs' perceptions.

Researchers have brought attention to the need for a better delineation of the factors and processes that account for entrepreneurial success (Brockner et al., 2004, p. 205). A key question for entrepreneurship research concerns how performance factors unfold for entrepreneurs over time (Shaver & Scott, 1991; Corner et al., 2017). Research suggests that entrepreneurs' perspectives on novel and ongoing business challenges may relate to subjective assessments and anticipated performance (Bird, 1989; Low & MacMillan, 1988; Chandler & Hanks, 1993; Davidsson, 2007; Frese & Gielnik, 2014). This dissertation explores entrepreneur's ongoing sense of satisfaction with business progress.

Within the entrepreneurial journey entrepreneurs' capacity to deal with adversity may unfold as a response to negative experiences or undesirable business outcomes. Cope (2005) argues that venture failure is one of the most challenging experiences that entrepreneurs' may face when building their venture. The lived experience of being an entrepreneur in conditions of business failure causing the entrepreneur both emotional pain and exhaustion (e.g., Shepherd, 2003; Cope, 2011). This dissertation explores adverse events as challenges in the entrepreneurs' environment that may lead to either negative or positive outcomes.

2.6.2 Entrepreneurial Learning

The extant literature on entrepreneurial learning posits contrasted views. Coehlo and McClure (2005) show that failure may lead a business to cut back on resources, which would later be viewed as beneficial for the firm because of greater efficiencies and improved firm performance. In this regard, Politis (2005) suggested that an entrepreneur's past experiences could be transformed into entrepreneurial knowledge and subsequently allow the entrepreneur to better identify opportunities. This may provide indication that entrepreneurs may develop a 'cognitive early warning system' that enables anticipatory corrective actions to be taken in subsequent situations or ventures (Politis, 2008). For these reasons, concepts such as learning from adversity and the significance of failure have been concentrated upon in entrepreneurship research (e.g., Singh et al., 2007; Cope, 2011; Jenkins et al., 2014). However, entrepreneurship scholars offer alternative conclusions on the extent to which entrepreneurial learning occurs after failure situations (Singh et al., 2007; Frankish, Roberts, Coad, Spears & Story, 2013). Concerns have been expressed that the definition of entrepreneurial learning has been insufficient within the field (Shepherd, 2003). Furthermore, researchers provide warning that entrepreneurial learning may still be an 'unproven' phenomenon (Frankish et al., 2013). This apparent incongruity requires further consideration.

Frankish et al. (2013) counterpose researchers who view entrepreneurial learning more favourably (e.g., Casson, 1982; 1999; Cope & Watts, 2000, Cope, 2005a). In doing so, they provide an alternative conclusion from their analysis of bank financial data compared to 'survival rates' for over 6000 firms. Frankish et al. (2013) argue that evidence is insufficient for entrepreneurial learning 'as a group' because of their findings that point to tentative links between an entrepreneur's business experience and firm survival (p. 102). They assert that new situations entrepreneurs' face are unlikely to resemble prior conditions for decision making, thereby *preventing* entrepreneurial learning. Highlighting the underlying premise of their argument, Frankish et al. (2013) draw comparisons between '*learning from experience in novel situations*' to the '*chance of learning from winning the lottery*' (p. 77). This is analogous to the Gambler's fallacy, or a mistaken belief that *random* or inconsistent events are deterministic of future *random* events. With this

premise, Frankish et al. (2013) pose their argument that learning is only *reliable when situations are more repeated* (e.g., Thompson, 2009). As a result, Frankish et al.'s (2013) argument points to cognitive psychology and heuristics, as routine decisions based on reliable thinking.

An entrepreneur may anticipate future rewards from their current efforts, and this may motivate them to more favourable appraisals of their conditions or situation (e.g., Casson, 1982; 1999). Motivation theories postulate that behaviour can be a response to frustration people experience from living in an inconsistent and uncertain world (Amsel, 1992; Wong, 1995; 2006). In this way, Frankish et al (2013) offer considerations that uncertain or random reward schedules may indeed result in entrepreneurial learning because of reinforcement effects that follow an entrepreneurs' situation-specific responses and decision-making. This fits conceptually with the notion of situated learning (Lave & Wenger, 1991). In this regard, resolving entrepreneurial uncertainty can be considered a function of *learning by doing*, whereby error detection and correction follow sequentially over time (Petkova, 2009).

Indeed, this discourse suggests a key feature of learning that takes place within the entrepreneurial process (Singh et al., 2007) and further relates to routine decision-making and heuristics that entrepreneurs may come to rely on when facing and making sense of new or challenges situations (Poole, Gioia, & Gray, 1989; Byrne, 2013). Where facing confusion and uncertainty may lead to frustration (Savolainen, 1993, p. 17), potential barriers to routine thinking may also be indicated (Horowitz, 1983). These experiences are expected to connect to learning that occurs when entrepreneurs face novel or challenging situations (c.f. fluid intelligence; e.g., Kent, 2017), and further relate to individual's efforts to reproduce conditions that they anticipate will give them the best chance or likelihood of reaching the outcomes they seek, or otherwise feel motivated to achieve.

These arguments prompt a necessary examination into pre-requisite conditions suitable for entrepreneurial learning, although such examinations are evident in reviewing the literature (e.g., Casson, 1982; 1999; Cope & Watts, 2000; Singh et al., 2007). Singh et

al. (2007) highlight one entrepreneur from their research who claimed to have learned that “his personality is not a good match for starting a business,” yet they observed, “he expressed interest in forming another venture” (p. 341). Such a contradiction would support scepticism about the nature of entrepreneurial learning as it occurs for entrepreneurs, especially in failure situations, and given the prevalence of firm failure rates highlighted in extant research (e.g., Yang & Aldrich, 2012). While an entrepreneur's past experience might be an asset for new ventures, if the entrepreneur plays an active role in the company, it might be expected that the ongoing experiences and learning are likely to play a greater role in venture development. This dissertation explores learning as a dynamic concept to emphasise the continually changing nature of organisations.

2.6.3 Entrepreneurial Development

The experience of being an entrepreneur develops over time (Gartner & Shane, 1995) within the context of adversity (Drnovsek et al., 2010). For entrepreneurs, movement through the steps or stages of starting a venture represents an emerging temporal experience. Indeed, entrepreneurship is a journey where both the destination and the path to that destination can be uncertain and unknown. While temporal dynamics are at the heart of entrepreneurship (Bird & West, 1997, p. 5), entrepreneurship scholars know strikingly little about how this journey unfolds within an individual entrepreneur over time and the dynamics of performance as they occur (Frese & Gielnik, 2014). This dissertation explores business performance through a process-driven lens of microgenesis.

Prior research suggests learning from the experience of failure is a process by which ‘individuals develop into becoming entrepreneurs’ (Scott & Lewis, 1984). That is, external factors may not necessarily lead to adverse conditions if entrepreneurs can learn to handle challenges correctly for a specific situation. In fact, entrepreneurs have attributed their learning from past failure as a crucial element of their entrepreneurial experience (Cardon & McGrath, 1999). A consistent message from many theorists is that failure represents an essential prerequisite for learning (Cave, Eccles, & Rundle, 2001; Stokes & Blackburn, 2002) that can later improve an entrepreneur’s probability of success in subsequent entrepreneurial initiatives (e.g., Minniti & Bygrave, 2001; Shepherd, 2003;

Singh et al., 2007). This fits conceptually with dynamic learning perspectives in entrepreneurship (Cope, 2005a) and the notion of situated learning (Knowles, 1990; Lave & Wenger, 1991; Cope & Watts, 2000), whereby individuals learn by doing based on situation-specific and dilemma-driven rationalisations. However, an essential hypothesis proposed by Vygotsky (1978) is that learning processes may be nested within development. Rather, sequences occur in which development lags behind the learning process resulting in a ‘zone of proximal development’ (Vygotsky, 1978, p. 35). From this theoretical lens, this dissertation explores entrepreneurial development as a latent effect of learning.

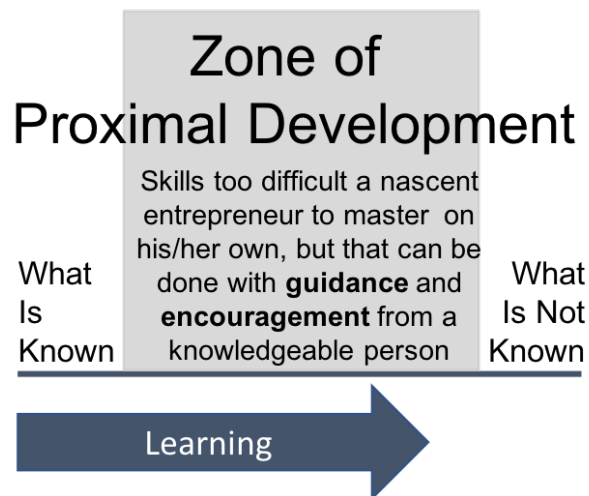


Figure 2. Zone of Proximal Development (Vygotsky, 1978)

Addressing such dynamics in how individual-level capacity of entrepreneurs emerge, evolve, and change over time (Kozlowski, 2009, p. 3) has been necessary to advance theories in entrepreneurship research. From its theoretical lens, entrepreneurial development may underpin adaptive responses to adversity and setbacks that allow entrepreneurs to recover from emotional, financial and relational impacts. As such, whether from abject failure (i.e., termination of business) or subjective failure (i.e., inability to address a problem), the effects of learning may provide an important experience for entrepreneurs when figuring out what practices do not work (cf. trial and error) while engaging in business opportunities (Alvarez & Barney 2005; Singh et al., 2007). Alternatively, a lack of learning from trial and error type experiences can

jeopardise the development process and the entrepreneurial opportunity (Alvarez & Barney, 2005; Singh et al., 2007). Where trial and error might be expected from new situations, Cope and Watts (2000) concentrate on learning from moments of adversity in the lives of six entrepreneurs and concluded that setbacks were the catalysts for ‘fundamental, higher-level learning’ (p. 104). They point to catalysts for higher-level learning because of the potential that preceding experiences may need to be abstracted and generalised across new situations or business contexts (Gibb, 1997) *before* such higher-level learning or recovery to occur. This dissertation explores how and why entrepreneurs develop an understanding of outcomes and contingencies in their business.

2.7 Entrepreneurial Resilience

This sub-section places entrepreneurial resilience into the wider framework of adaptive stress management and brings it closer to an applied science. This literature presents a framework of resilience as a broad-level construct that crosses and converges multiple levels of analysis, with theoretical underpinnings from multiple scientific disciplines. This dissertation explores entrepreneurial resilience as an actor dependent process continuously shaped by contingency and ‘effectuation’.

2.7.1 Entrepreneurial Adaptation

Over the past two decades, resilience has become a well-researched topic in the mental health field, with international research on resilience increased substantially following dissatisfaction with ‘deficit’ models of illness and psychopathology (Windle, Bennet & Noyes, 2011). The psychological study of resilience is based around the need for better explanations of an entrepreneurs’ subjective experience. The study of resilience, historically, has been an elusive phenomenon for researchers to fully grasp and understand. Scholars have historically focused on the notion of resilience as a multidimensional phenomenon (Cicchetti & Garnezy, 1993) that is encompassed within a framework for positive adaptation. Across academic fields, researchers have increasingly

understood resilience as an active process of adapting stress responses to address a challenging context (Feder et al., 2009). This extends recognition in the literature towards further inquiry needed to understand entrepreneurial capacity to overcome adversity (Tugade & Fredrickson, 2004; Hmieleski & Carr, 2007; Boyd & Gumpert 1983; Akande 1994; Singh & Pavlovich, 2011).

While a seemingly simple construct, the theoretical understanding of resilience is most prominently discussed as a broad multilevel, multi-dimensional phenomenon (Cicchetti & Garmezy, 1993). Windle et al. (2011, p. 2) derived a definition of resilience from a systemic review and synthesis of over 270 research articles:

Resilience is the process of negotiating, managing and adapting to significant sources of stress or trauma [emphasis added]. Assets and resources within individuals, their life and environment facilitate this capacity for adaptation and ‘bouncing back’ in the face of adversity. Across life course, experience of resilience will vary.

Whether behaviour in general is represented as innate or learned is heavily debated. In fact, scholars often comprehend resilience as an individual trait (Charney, 2004) while others prefer to characterise resilience as something that can be learned and developed (Masten, 2001). Resilience processes are also referred to as both innate and learned. This is a frequent source of debate as can be seen looking at the confusion within entrepreneurship around ‘psychological traits’ research. Regardless, scholars posit that the influence of genetics on biological responses is much larger than the influence of genetics on behavioural responses (Feder et al., 2009). Prior research advocates for a perspective that resilience does not protect individuals from negative life events, but resilient individuals seem to cope more functionally and flexibly with stress (Friborg et al., 2003).

There are, of course, theories that may underpin resilience. For example, conceptual congruence with requisite variety (Ashby, 1962) suggests that development a wider range of coping strategies, resources and responses should connect positively to qualities of adaptiveness or resourcefulness in entrepreneurs. Additionally, the theoretical basis

behind stress research provides support for adaptive responses and positive outcomes (Selye, 1974; Wong, 2006; Feder et al., 2009). This early stress literature posited theoretical notions of “eustress” (Selye, 1974) as ‘the pleasant stress of fulfilment’. This corresponds with the current theory behind resilience as an adaptive stress response, and thereby indicates resilience as a higher-order theoretical construct. The successful application of resilience towards empirical inquiry in entrepreneurship research requires acknowledgement of how these underlying theories may integrate coherently.

Entrepreneurial resilience is understood in disparate ways across the entrepreneurial literature. In a review of extant literature, Lee and Wang (2017) identify 52 studies with empirical evidence yet “no well-established instrument” to study resilience (p. 534). Regardless, this dissertation consolidates the various discourses in extant literature into entrepreneurial capacity to adapt or recover from adversity (e.g., Frese & Gielnik, 2014). However, discourse in entrepreneurship that contributes to resilience as a psychological or behavioural construct include cognitive adaptability (Haynie & Shepherd, 2009; Haynie, Shepherd, & Patzelt, 2012), managing uncertainty (Baum et al., 2013), learning and recovery from failure (e.g., Sitkin, 1992; Cope, 2011; Shepard, 2003), coping with emotional significance (e.g., Cope, 2011; Baron, 2014; Jennings et al., 2015), and responding to “entrepreneurial barriers” as psychological conflicts that must be resolved (e.g., Shapero, 1975; Shapero & Sokol, 1982; Krueger, 2008). Desirable outcomes may require that obstacles to behaviour are overcome (Gelderen, 2014) throughout the entrepreneurial journey. All of these are supportive ideas currently within entrepreneurship, but claims are often limited by shortcomings in either theoretical frameworks or methodologies.

Table 3. Dimensions of Entrepreneurial Resilience indicated in Literature

Approach	Authors	Concept of resilience in entrepreneurship
Resilience as personal characteristic: trait, quality or skill	Ayala Calvo & Manzano- Garcia (2010)	Dimension of entrepreneur's human capital, similar to concepts of locus of control and need for achievement.
	Charney, 2004	Resilience is comprehended as an individual trait.
	Manzano-Garcia & Ayala Calvo (2013)	Quality of entrepreneurs. Authors suggest three dimensions of resilience: hardiness, the ability to find resources and optimism. Authors point to evidence that these dimensions contribute to entrepreneurial success.
	Dewald & Bowen (2010)	Cognitive framework. Also seen as an organisational capacity to adopt new routines when faced with threats and opportunities created by innovation.
	Duening (2010)	Cognitive talent recognised in entrepreneurs to be developed in education and experience.
	Masten, 2001	Resilience as skill that can be learned and developed.
	Drnovsek et al. (2010)	Indirectly in concept of coping as ability to face stress while retaining performance and well-being.
	Hayward et al. (2010)	Positive quality, associated with an entrepreneur's confidence, ability to rebound and create new companies after a venture failure. Authors suggest three types of resilience: emotional, social and financial.
	Ngah & Salleh (2015)	Suggested indirectly as a characteristic linked to emotional intelligence and innovative abilities of entrepreneurs.
	Shigley (2010)	Indicated as a 'resistance' skill and personal quality of entrepreneurs, such as optimism, autonomy and risk tolerance.
Resilience as response to adversity or challenging events	Branzei & Abdelnour (2010)	Observed in contexts of extreme adversity, such as terrorism. Resilience indicated as resistance to conditions of adversity and having positive implication on financial resources.
	Chakravorti (2010)	Indicated indirectly with emphasis on the nexus between difficult environments and entrepreneurial opportunities.
	Dahles & Susilowati (2015); Pike, Dawley & Tomaney (2010); Williams & Vorley (2014)	Conceptualised economic resilience as an ability of a region or community to recover after recession, economic shock, natural disaster or political crisis. Indicated as the resilience of places in response to uncertain, volatile and rapid change.
	Holland & Shepherd (2011); Davidsson & Gordon (2016)	Indirectly as a decision to persist in pursuing entrepreneurial opportunity in a context of adversity.
	Krueger & Brazeal (1994)	Associated with entrepreneurial potential and dependence on "nourishing" environments with social and cultural support for entrepreneurs to gain information, knowledge and resources.
	Shapero (1975, 1981); Shapero & Sokol (1982)	Indicated in 'displacement' that follow traumatic events, as a precursor for entry into entrepreneurship. Economic resilience follows difficult events and depend on environments with sufficient support.
	Resilience both as quality and response to adversity	Bullough & Renko (2013); Bullough, Renko, & Myatt (2014)
Goldstein, 2008		Resilience considered an interplay and process between both innate and learned skills.
Frese & Gielnik, 2014		Entrepreneurial resilience as capacity to adapt or recover from adversity.

2.7.2 Entrepreneurial Effectuation

The conceptualisation of resilience in this dissertation brings the work-family interface into focus (Jennings & McDougald, 2007; Grzywacz et al., 2007; Grzywacz & Marks, 2000), particularly considering the practical implication is that entrepreneurs operate in ways that are at once both personal and professional (Wincent & Örtqvist, 2009). For example, Yang and Danes' (2015) longitudinal study of 94 early stage married entrepreneurs suggests the interplay of subjective and objective factors affecting entrepreneurial outcomes. The researchers conceptualised that spousal commitment could provide 'protective mechanisms' and improve entrepreneur's confidence, life outlook, and business demand that were associated with business success.

Indeed, it has been important to consider aspects of life that cross-over between personal and business. This involves how entrepreneurs balance their emotional needs with the practical challenges of running a successful business (Drnovsek, Örtqvist & Wincent, 2010). Entrepreneurs may have multiple roles and obligations that they must balance at any given time point, both within their business endeavour and personal lives. Dew and Sarasvathy (2007) argue that entrepreneurial experience includes both mundane and momentous events. Indeed, Morris et al. (2012) propose that entrepreneurs' experience of these events should be a principal focus in research. Therefore, while entrepreneur's past experiences might be an asset for new ventures, if they play active roles, it might be expected that ongoing experiences and learning are likely to play out more substantially in how ventures develop. For example, the notion from within entrepreneurship is that ineffective management of stressful demands in the start-up process will likely have negative impacts on the entrepreneur (Boyd & Gumpert, 1983; Akande, 1994; Singh & Pavlovich, 2011), which further flow into and impact the business.

Wiklund and Shepherd (2005) argue for a view of business performance that is multidimensional in nature, suggesting an advantage to integrating different dimensions of performance in empirical studies. Baum et al. (2001) contend that "individual, organisational, and environmental dimensions combine to provide a more comprehensive prediction of venture development and growth than any one dimension in isolation" (p.

292). Multi-dimensional constructs may reveal richer relationships between each of the dimensions (Dai et al., 2014), yet studies also including temporality of dimensions are uncommon in entrepreneurship. The broader notion of entrepreneurial resilience as a developmental and multidimensional phenomenon (e.g., Cicchetti & Garnezy, 1993) is conceptually aligned with further exploration into the complexity with which entrepreneurs must calibrate their resources and practices to improve business outcomes.

Discourse around failure and learning is critical to the development of a model for entrepreneurial resilience. As an alternative to cognitive approaches, emerging literature on entrepreneurial learning (i.e., Cope, 2011) shifts discourse within entrepreneurship towards an exploration of experiential aspects of venture formation, whereby entrepreneurs experience significant failure effects and then re-engage in new approaches or ventures after a failure. This restoration after failures (Shephard, 2009) may occur as high (double-loop) and low (trial and error) order forms that enable recovery from failure and are otherwise discussed as ‘regenerative failures’ within the literature (Cope, 2011). However, the learning framework primarily depicts processes that may occur after failures are experiences, but the build-up to failure is not well-articulated within the discourse.

Sarasvathy (2001) articulation of differences between causation and effectuation that have been highly influential within entrepreneurship. The fundamental suggestion is that, as a process, ‘effectuation’ is generative based on contingency while ‘causation’ is dependent on exploitation of existing knowledge. The main elements captured in this logic of effect-based heuristics include decision-making and competencies, contextualisation, uncertainty and outcomes. However, the effectuation model by Sarasvathy (2001) may be limited when greater details are needed about the dilemmas or setbacks that occur in order to cause discontinuance. While conceptually aligned with Sarasvathy’s (2001) articulation of effectuation process, this dissertation does not give priority to the characteristics of effect-based heuristics. Rather, this dissertation fits effectuation into a broader definition of ‘bringing changes into effect’ as a result or consequence of action. This dissertation explores actor dependent processes in decision-making and coping that may continuously shape entrepreneurial resilience through contingency and effectuation.

2.7.3 Entrepreneurial Process

This extant literature points to important implications for theory development in entrepreneurship. Recognition exists that entrepreneur's perspectives, interpretations and experiences of events can change depending on time and context (Bogdan & Taylor, 1975; Shaver & Scott, 1991; Baum et al., 2001; Corner et al., 2017). Indeed, this discourse reflects that entrepreneurship may be more appropriately a cumulative series of interdependent events that take on properties rooted in entrepreneurs' responses (Morris et al., 2012). Taking this perspective requires explication of theoretical mechanism which may underpin observed fluctuations and changes during the venture creation process (Bolger & Laurenceau, 2013; Hoffman, 2015). This dissertation holds that integration of process theory (Van de Ven, 1992; Pettigrew, 1997; Sminia, 2011; Van de Ven & Sminia, 2012; Hernes, 2014) will be necessary to bridge gaps between theories, methods and practices that show greater complexity in entrepreneurship.

Such complexity may be seen, for example, in processes involved with entrepreneurs' attempts to prevent failure from occurring in the first place, compared to response and recovery processes that occur following a failure. Complex situations have multiple and diverse connections with dynamic and interdependent relationships, events and processes (Bennet & Bennet, 2004). Albeit, additional components might be assumed in the development of business systems (financial, human, service, etc), whereby efforts lead to higher levels of control and predictability as the venture improves capabilities for the acquisition and retention of capital (clients, resource, and credibility). Rather, over time desires, expectations and control entrepreneurs exercise in response to adversity may enable effective responses while engaging in market activities. In this sense, process-based epistemology (Moroz & Hindle, 2012) and process-driven explanations (Sminia, 2011; Van de Ven & Sminia, 2012) will ensure entrepreneurship is informed by a distinctly temporal view. Fundamentally, novelty and continuity may be linked and indispensable to one another through a recursive relationship between process and organisational structure.

In this sense, the emphasis in process-oriented perspectives involves consideration of event sequences (Van de Ven, 1993, p. 170; Van de Ven & Poole, 1995) that unfold over time in context (Pettigrew, 1997, p. 338). The specific trajectories of entrepreneurs that may be interdependent with how events occur to other ‘actors’ and underlying drivers of key events (Sminia, 2011). Fundamentally, process approaches focus on the connections and links between variables, as containing embedded information about events that may be viewed in different ways or hold different meanings over time (Van de Ven & Sminia, 2012). Van de Ven and Sminia (2012) offer insight into the alignment of process-related questions, perspectives and conceptual explanations that may be framed around actions and events in the past, present and future (see Figure 3).

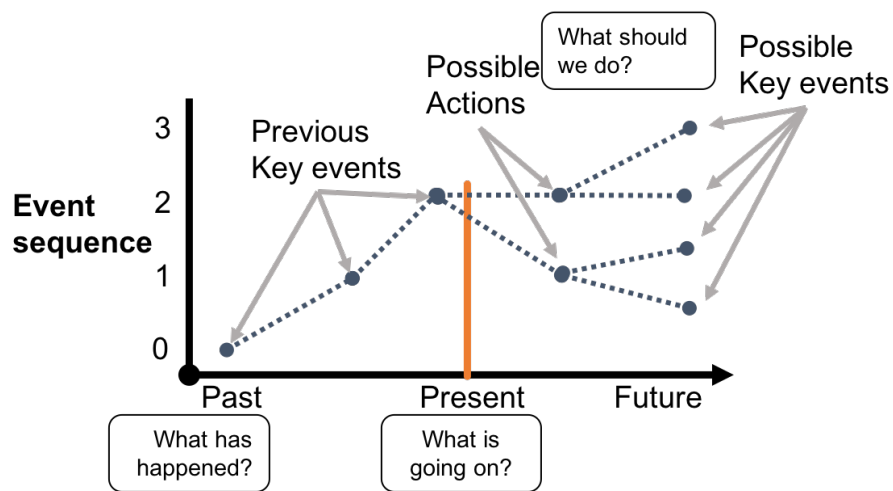


Figure 3. Alignment between process questions & perspectives

Van de Ven and Poole (1995) introduces four theories of process and change, including life cycle, teleology, dialectics and evolution. Each represent different sequences of change events which are driven in turn by different conceptual motors. For example, dialectic processes may be indicated when dilemmas, challenges or conflicts emerge. The central focus may be an understanding how continuity is achieved, and ways in which practices are enacted to resolve a challenge or conflict. This process-based rationale should allow researchers to explore underlying mechanisms for change and continuity (see Figure 4).

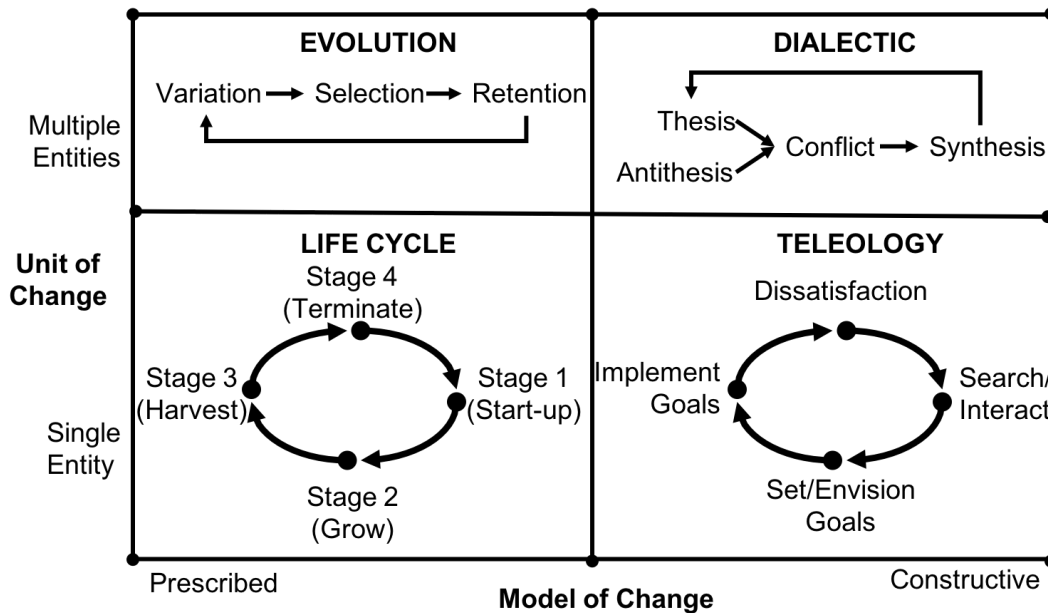


Figure 4. Models of Change in Process Theory (Van de Ven & Poole, 1995)

This definition requires focus on a distinctly temporal view of entrepreneurial dynamics that emerge, evolve, and change over time (Kozlowski, 2009, p. 3). Indeed, ‘actors’ take part in organisational formation over a series of events that can ‘provide force, movement, and continuity’ (Sminia, 2011; Hernes, 2014). Sminia (2011) provides emphasis that process is not a synonym for change, but rather process about both continuity and change that manifest from events set in motion some time before outcomes can become realised. This process perspective and conceptual explanations relate to different objectives for temporal questions and may help the understanding of entrepreneurial process in different ways.

Such an inquiry into underlying mechanisms is crucial to uncovering the dependability and transferability of processual phenomena (Fahrenberg et al., 2007) in entrepreneurship. For example, relevant transitions or changes for entrepreneurs may represent movement through life cycle stages towards a ‘final state’ with several equally effective ways to achieve business-related outcomes (cf. equifinality; Sato, Hidaka, & Fukuda, 2009). Indeed, the experience individuals goes through in overcoming setbacks may lead to self-efficacy (Wood & Bandura, 1989) and continuance in ventures (Gartner, 1990). Accordingly, Van Gelderen (2014) suggests that a model based on perseverance

would focus on actions from entrepreneurs by examining events and where adversity is encountered in a particular setting. Indeed, he further points out that processes involved with perseverance may include drawing on individual strategies that influence adversity, changing the way adversity is perceived, reframed or increase ability for one to self-regulate (p. 632). In this dissertation, process theory is applied towards characterising how entrepreneurs adjust business practices to mitigate the risk or likelihood of negative outcomes and adapt resources to improve the likelihood of favourable outcomes.

Entrepreneurship researchers have advocated use of a process approach when studying entrepreneurship (Shaver & Scott, 1991; Minniti & Bygrave, 2001; Moroz et al., 2013; Hayton et al., 2013; McMullen et al., 2013; Baron, 2014), possibly because process approaches favour contextualised explanations of events as they occur. The entrepreneurial processes that are most implicated in a build-up to singular outcomes is a key gap in this overall discourse (e.g., Cope, 2011). Given that failure may occur at any point in the entrepreneurial process, indeterminacy of time windows for recovery may present unique methodological obstacles for the preferred empirical toolkits in entrepreneurship.

2.8 Conceptual Framework

This literature informs the conceptual framework by highlighting the integration of coping responses and decision-making processes in varied entrepreneurial outcomes. This sub-section integrates external perceptions, perceived capacity, and entrepreneurial effectuation as multiple dimensions of performance that unfold over time integrates concepts reviewed into a conceptual framework for this dissertation (see Figure 5).

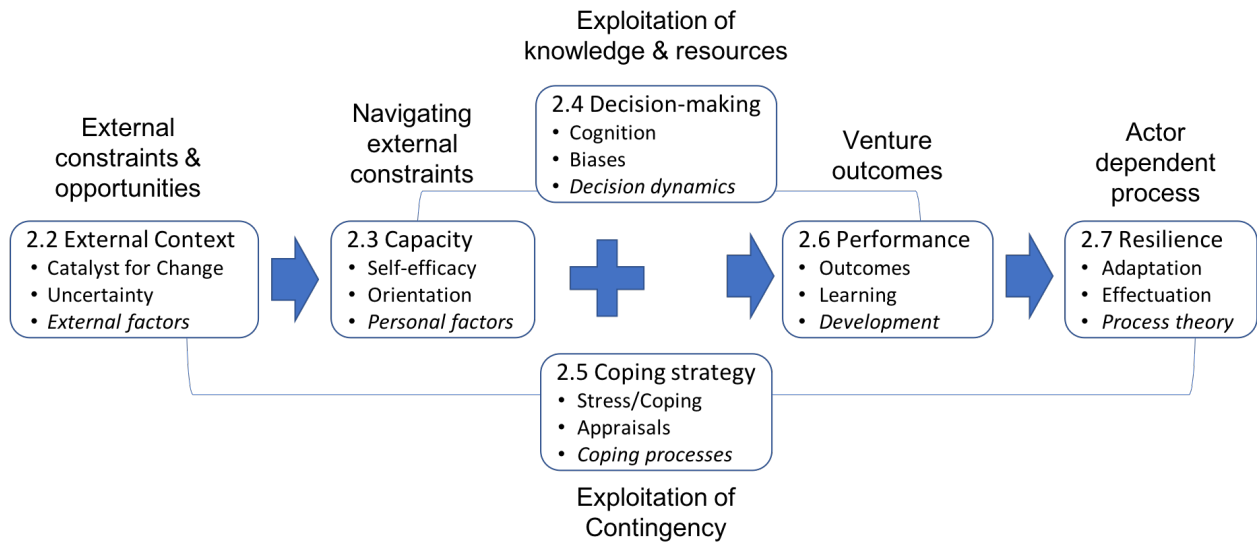


Figure 5. Illustrating conceptual framework

This section provides the conceptual framework and highlights the need for longitudinal approach to help reveal antecedents to entrepreneurial outcomes for individual entrepreneurs, given that development of event-based understanding of entrepreneurial processes will likely illuminate the historically outcome-driven explanations within entrepreneurship. Adequately accounting for emerging entrepreneurial phenomena, such as entrepreneurial successes and failures, requires that entrepreneurs do not know *a priori* the outcomes of events and activities (Van de Ven, 1992). This conceptual framework is extended to include processual and temporal dimensions.

Recognition of **external and structural business factors** as a contextual source of emerging challenges, situational extremes, uncertainty and adversity that entrepreneurs face. This literature considers a range of external business factors that may result in challenging contexts.

Entrepreneurial capacity and subjective lens in interacting with external, constraining factors in the environment while managing uncertainty and engaging in venture creation. This literature focuses on personal factors that drive entrepreneurs to exercise agency and assert their capability to respond effectively to adversity. Draws on a range of different 'schools of thought' within psychology.

Entrepreneurial decision-making processes as they evolve over time. This literature highlights routine decision-making and heuristics that entrepreneurs may come to rely on when facing and making sense of new or challenges situations. This dissertation also explores formation of biases and heuristics. Further consideration is provided for how precursors to decision-making, actual decisions, and consequences of decisions may unfold for entrepreneurs over time during venture creation.

Entrepreneurial coping strategies will operate in ways that are interconnected and mutually influential as entrepreneurs navigate through the uncertainties and structural challenges. Scientific investigation of individual and subjective experience goes beyond cognitive explanations of entrepreneurial intentions or structural awareness. This narrative is central to the way in which entrepreneurs navigate challenges, setbacks and uncertainty in their ventures.

Entrepreneurial performance from the lens of microgenesis and temporal dynamics. The role of entrepreneurs' coping strategies and decision-making processes may concern how individual entrepreneurs learn and develop experience to meet demands of day-to-day business challenges. This conceptual framework integrates drivers of entrepreneurial performance that link to existing literature under the categories of *perceptions of external business context*, *entrepreneurial capacity*, and *entrepreneurial effectuation* (see Figure 6):

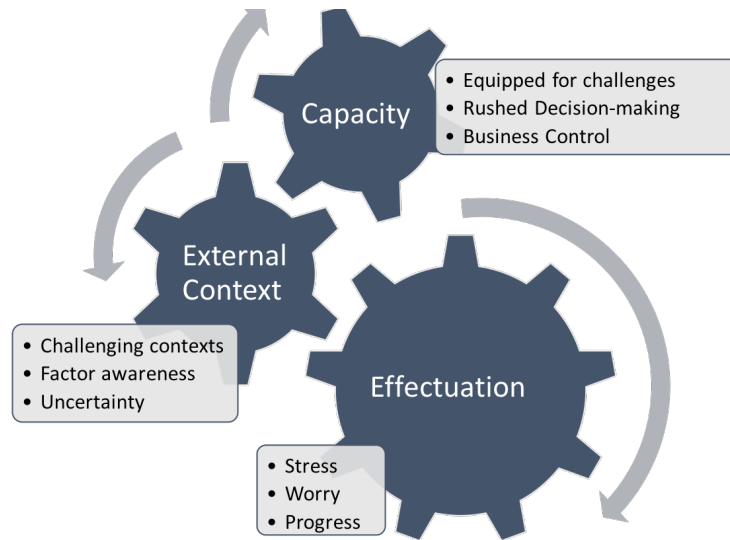


Figure 6. Conceptualised drivers of entrepreneurial performance

Entrepreneurial resilience explores adaptive stress responses as a connection between individual and external factors relevant to coping resources, business performance and external context. Thus, capacity to overcome obstacles and resolve business conflicts will generally be a key aspect of resilience to bring it closer to an applied science. This sits under the wider framework of adaptive stress management and repositions resilience as a higher-order theoretical construct that crosses and converges multiple levels, with theoretical underpinnings from multiple scientific disciplines.

SECTION 3: METHODOLOGY

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Overview

The aim of this chapter is to describe and justify the philosophical traditions relevant to the research methodology undertaken in the present study to explore developmental processes and phenomena that contribute to entrepreneurial performance. A multidimensional and multi-method approach to exploring entrepreneurial phenomena has been central to research in this dissertation. Section 3.2 situates the study within the philosophical traditions relevant to this research, including epistemological and methodological positioning. This dissertation builds rationale for research approaches taken, including interpretivist epistemological alignment with implementing the tenants of process theory in entrepreneurship inquiry. Additionally, Section 3.3 outlines the research design and methodological approach for developing a data collection framework with mixed methods and longitudinal research for combining interview and diary, along with supporting rationale guided by the principles of ‘complementary assistance’.

Furthermore, Section 3.4 provides the research sample and rationale for selecting entrepreneurs to participate in the research. Section 3.5 provides the specific data collection strategies for participant recruitment, interviews and diary methods and ensuring quality of the research, including evaluating strengths and identifying limitations in this methodology. This study adduced longitudinal evidence from 108 diary-based accounts of participants’ day-to-day experience and 12 in-depth qualitative interviews providing direct insight into the entrepreneurial process, drawn from six participating entrepreneurs over a three-month timeframe. Section 3.6 provides the methods and tools used for multi-case analysis and then Section 3.7 offers further steps taken in the research approach to improve reliability and mitigate potential weakness in the research. Finally, Section 3.8 summarises the main points of this chapter.

3.2 Rationale for research approach

This section starts by outlining the philosophical traditions and paradigms relevant to the research methods undertaken in the present study.

3.2.1 Introduction

Among other scholars, Burrell and Morgan (1979) recommend that before deciding on appropriate research methods that researchers in the social sciences should identify their various philosophical and metaphysical assumptions or paradigms (e.g., Cunliffe, 2011). Whereas ontology relates as an overarching worldview about the nature of society or the meaning of being human, epistemology relates to the nature or purpose of knowledge. The primary concern shared by scholars has been with the paradigms used in research when summarising beliefs or shaping epistemological and methodological strategies to build theory (Burrell & Morgan, 1979; Morgan, 2007; Cunliffe, 2011). This dissertation follows an interpretivist epistemological approach (e.g., Denzin & Lincoln, 1994) which concerns both uniqueness and relevance of the information used by individuals, or as research subjects, based on their personal experiences, life stories, or related introspections. As such, this section will present paradigmatic positions (Morgan, 1983) relevant to conducting a grounded enquiry into nature of the entrepreneurial phenomena under study within this dissertation. This section expands from epistemological positions to further present the methodological and research strategies utilised for the present study.

3.2.2 Epistemology

Epistemology relates to the nature or purpose of knowledge. As this applies to entrepreneurship, an interpretivist approach emphasises the importance of an individual entrepreneurs' subjective experiences, unfolding perspectives or the developmental nature of their entrepreneurial endeavours. More generally, interpretivism concerns both uniqueness and relevance of the information used by individuals, or as research subjects, based on their personal experiences, life stories or related introspections that impact their

unique social reality (Myers, 2009). This relates to Allport's (1985) view of a social-psychological lens that deals with how thoughts, feelings, and behaviours of an individual are influenced by the actual, imagined, or implied presence of others. In this way, a predominantly social-psychological (Allport, 1985) or intersubjectivist (Morgan, 2007) lens comprises a key linchpin in this research with entrepreneurs' meaning-making and interpretations of both their creative and managerial efforts. These notions hold value for conceptualisations of entrepreneurial development used in this dissertation.

Dew and Sarasvathy (2007) argue that entrepreneurial experience includes both mundane and momentous events. Indeed, it is the entrepreneurs' experience of these events that Morris et al. (2012) propose should be a principal focus in entrepreneurship research. This would point to the nature of entrepreneurship as more appropriately a cumulative series of interdependent events that take on properties rooted in an entrepreneurs' affect and emotion (Morris et al., 2012). Such dynamic perspectives have relevance to entrepreneur's personal experiences, life stories and related introspections that impact their unique social reality (Myers, 2009). As such, entrepreneurs' movement through the steps or stages of starting a company represents an emerging temporal experience, as a journey where both the destination and the path to that destination can be uncertain and unknown (e.g., McMullen & Dimov, 2013). These perspectives of temporal sequence of events may be strengthened by more fundamental inclusion of process theory rationale (Van de Ven & Sminia, 2012). Recognition of these phenomenological dimensions within entrepreneurship requires that inquiry follows an inherently process-based epistemology.

Entrepreneurship scholars have attested to the importance of multi-phase perspectives and a need for entrepreneurship theory to specify how performance dynamics might cross between different phases (Hisrich et al., 2007; Hitt et al., 2007; Moroz & Hindle, 2012; Frese & Gielnick, 2014). Early research has suggested that learning from experience while actively engaged with entrepreneurship is a process by which individuals develop into becoming entrepreneurs (Scott & Lewis, 1984). Scholars contend that understanding how entrepreneurs learn from the adversity they face has significance for

entrepreneurship research (e.g., Singh et al., 2007; Cope, 2011; Jenkins et al., 2014). For example, entrepreneurs' past experience might be an asset for their new endeavour, but if entrepreneurs play an active role in developing their businesses, then ongoing experiences and learning might be expected to play a greater role in personal capacity. This acknowledges that the views, beliefs and biases that impact entrepreneurs' decisions and coping strategies are likely to originate from personal experiences (Nagel, 1974; Cope & Watts, 2000; Dew & Sarasvathy, 2007). Such a perspective fits conceptually with the notion of 'learning journeys' (Cope & Watts, 2000; Cope, 2011) and situated learning (Knowles, 1990; Lave & Wenger, 1991). These epistemological implications have been considered in shaping this methodology.

3.2.3 Methodology

The chosen methodology for research objectives and priorities align with the epistemological positions taken within this dissertation to explore how do early stage entrepreneurs' coping strategies and everyday decision-making processes relate to self-appraisals of performance. Indeed, while temporal dynamics are at the heart of entrepreneurship (Bird & West, 1997), entrepreneurship scholars know strikingly little about how this journey unfolds within an individual entrepreneur over time and the dynamics of performance as they occur (Frese & Gielnik, 2014). Wider recognition exists within entrepreneurship discourse that methodological toolkits have been needed to detect process-based changes within an individual entrepreneur (Hmieleski & Baron, 2009; Morris et al., 2012; Frese & Gielnik, 2014). This would be especially true when the role of various personal and contextual factors continuously shifts for entrepreneurs (Lewin, 1951; Mischel, 1968; Baron, 2007), such as those contributing to unexpected outcomes for new ventures (Baron, 2012). This implicates the need for methods capable of capturing business creation as a continuous process, rather than discontinuous stages (Bygrave, 2006). This dissertation explores how performance factors unfold over time for individual entrepreneurs in their business contexts and marketplace (Shaver & Scott, 1991; Singh et al., 2007; Corner et al., 2017).

Methodological implications come from recognition that entrepreneur's perspectives, interpretations and experiences of events could change depending on time and context (Bogdan & Taylor, 1975; Denzin & Lincoln, 1994). This study engages with a key question for entrepreneurship research that concerns how performance factors unfold for individual entrepreneurs over time (Shaver & Scott, 1991; Corner et al., 2017). This pertains temporal and contextual factors (e.g., Mischel, 1968) relevant to intra-individual variation (Hoffman, 2015) in an entrepreneurs' performance (Frese & Gielnik, 2014; Hitt et al., 2007; Hmieleski & Baron, 2009; Baron, 2013). Hoffman (2015) points out that within-person fluctuation may be present in addition to more systematic change. Systematic effects of time may be relevant in short-term longitudinal research, such as the present study, designed for phenomenological inquiry (Cope, 2005b). For this reason, investigations of subjective entrepreneurial phenomena benefit from the 'within-subject' perspective (e.g., Shepard, 2010). The need for studies to place the entrepreneur at the centre of research is further highlighted as a central focus in this dissertation.

In alignment with the subjectivist paradigm used for research, this dissertation holds that social reality for entrepreneurs is affected by various mental, structural or social factors, including language or shared meanings (Myers, 2009, p. 38). This position extends to an assumption that entrepreneurs do indeed differ from each other in stable personal attributes, such as ethnicity and biological sex. Based on an assumption of *cross-situational consistency*, changes in these personal attributes would not be expected as a function of time—this means that such attributes would be considered *time-invariant* (Sato et al., 2009). Additionally, entrepreneurs are expected to have differences in personal attributes that are assumed as stable across time (e.g., Hoffman, 2015), such as intelligence or socioeconomic status, which may be susceptible to change due to systematic increases or decreases in these attributes—this means that such attributes would be considered *time-varying* (Sato et al., 2009). Furthermore, entrepreneurs may differ from each other depending on specific situations (Mischel, 1968), such as stress, mood, and energy level, which may be inconsistent across days, weeks, months, or years. Thus, when personal attributes do not remain consistent over time and across situations, then it may be more useful to examine the same person on multiple occasions.

Researchers have brought attention to the need for a better understanding of the factors and processes that account for entrepreneurial outcomes (Brockner et al., 2004; Cope, 2011). Indeed, previous studies of how successful entrepreneurs differ from less successful entrepreneurs have been problematic because of difficulty testing for *reversed causation* (Hisrich et al., 2007). For example, separating whether the personal characteristics of entrepreneurs are a predisposing factor or are learned from their experiences (Hisrich et al., 2007) become difficult *after* entrepreneurs fail (e.g., Denrell, 2003; Cope, 2011; Byrne, 2013) or become successful in a venture. This is indicative of the term ‘time perspectives’ adopted by Lewin (1951), which he clarified as an individual’s view of their psychological future and past, as it exists at a given time (p. 75). Following this logic, a continuous, forward-looking perspective defines the data collection approach in the present study.

Moreover, because an individual’s perspectives and recollection of events tend to change over time (Bogdan & Taylor, 1975; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009), longitudinal research that tracks prospectively can help establish links between events that happen in earlier time frames and the subsequent effects (Schmitz, Klug, & Hertel, 2012). This serves to highlight the importance of gathering data at multiple points within unfolding experiences, such that entrepreneurs do not know *a priori* the outcomes of events and activities (Van de Ven, 1992). Without these data points, the qualitative researcher trades the cause-effect model for a differently limited set of retrospective subjective viewpoints. Indeed, discourse among entrepreneurship researchers is that real-time, contemporaneous methods of data collection could reduce rationalisation that occurs after an event (Hall & Hofer, 1993; Shepherd & Zacharakis, 1997; Shepherd, 1999; Brundin, 2002). This dissertation considers causal order (e.g., Kessler & Frank, 2009) as an embedded phenomenon within entrepreneurial trajectory.

Methodologically, it is important to account for the unfolding trajectories of entrepreneurs as they make their way through uncertainty. In this regard, the present study has been influenced by the Trajectory Equifinality Model (TEM) by Sato, Hidaka, & Fukuda (2009) which highlights that a range of possible intermediary changes and forks

in the road can affect how entrepreneurs' journeys unfold. When explained in hindsight, participants may not be able to articulate the range of imagined possibilities for their life trajectories (see Sato et al., 2009). Indeed, the decision points along the way as entrepreneur's progress towards their goals will look more elaborate and clear while they are still in process than when they are later recalled months or years after the events an entrepreneur may describe (Sato et al., 2009). The other benefit of following trajectories through prospective data collection is to see how progress for entrepreneurs and their ventures may be achieved through several equally effective pathways (von Bertalanffy, 1968; Sato et al., 2009). As an entrepreneur looks forward towards the future, the range of possible intermediary changes might lead an entrepreneur to uncertainty about which path is best for their desired outcome (Van de Ven, 1992; Baum et al., 2001; Baum, 2004). Thus, it is important to evaluate decision-making as entrepreneurs look forward towards the future rather than only researching how entrepreneurs may explain their journeys in hindsight *after* they have arrived at their current position.

This dissertation explores how performance factors unfold for individual entrepreneurs by focusing on specific situations, challenges or dilemmas that entrepreneurs face starting their business (Deakins & Freel, 1998). This is rooted in the rationale that the experience of being an entrepreneur develops over time (Gartner & Shane, 1995; Cope & Watts, 2000) and can occur within the context of adversity (Drnovsek et al., 2010). Therefore, this exploration includes a multidimensional approach (e.g., Baum et al., 2001) to studying influential factors both within and outside of venture creation which can impact entrepreneurs' development. Indeed, Baum et al. (2001) have argued that multidimensional approaches to studying entrepreneurial outcomes may be antithetical to past research that has explored isolated causes of business performance. Although changes may manifest themselves in different patterns, or at different rates, across different entrepreneurs as a function of time, this contention holds that individual, organisational, and environmental dimensions may be combined to provide a more complete picture of venture development and growth than any one dimension in isolation. This rationale supports conceptual implications for theory development and various practical implications for research design strategies and methods in this dissertation.

3.3 Research design

This section discusses the implications from the methodological approach and further outlines research design used in this study. For this research, an interpretivist epistemology underpin the focus of this dissertation on entrepreneurs' self-observations, personal experiences, and sense-making of various personal and business challenges they face while engaging with entrepreneurial endeavours.

3.3.1 Introduction

Multidimensional (Baum et al., 2001) and multi-method (Shook et al., 2003) approaches to exploring entrepreneurial phenomena are central to the research design developed and employed within this dissertation. Bygrave (2006) contends that selected research methods should be appropriate for the nature of the entrepreneurial activities under study. With the aim to explore an overarching focus on entrepreneurial processes, the dissertation followed a mixed methods framework guided by the principle of 'complementary assistance' (Morgan, 2007), wherein the strengths and weaknesses of one method are offset by the other. This follows a suggestion by Shook et al. (2003) that researchers should attempt to triangulate their findings using multi-method studies. However, problems emerge given that scholars commonly view paradigms as assumptions underlying the theory building and methodology for particular scientific disciplines (Kuhn, 1962; Burrell & Morgan, 1979; Cunliffe, 2011). In this research, in-depth semi-structured interviews were supplemented by diary-based methods to examine the dynamics of individual-level entrepreneurial decision-making and coping over time.

3.3.2 Incommensurability

This research has made use of a mixed methods research design to maximise and offset the strengths and weaknesses of different methods and philosophical traditions. This follows a suggestion by Shook et al. (2003) that researchers should attempt to triangulate their findings using multi-method studies. However, scholars have held that when

undertaking social research and analysis, researchers need to keep within philosophical traditions from which they originate (e.g., Kuhn, 1962; Burrell & Morgan, 1979: 397; Watkins-Mathys & Lowe, 2005; Cunliffe, 2011). The reasoning for this dominant assumption is often indicated as necessary to develop a systematic and coherent perspective within the guidelines of each tradition — tenets which are indeed recognised as conducive to theory building (Whetten, 1989). Following this convention, Grant and Perren (2002) note complexities in their consideration of incommensurability, as an attempt to bridge gaps between different philosophical traditions. As these assumptions apply to the present study, this dissertation takes a more critical stance with regard to certain accepted views of incommensurability between paradigms — particularly between philosophical traditions and research methods.

This idea and present-day popularity of ‘paradigm’ has been attributed to Thomas Kuhn’s landmark book, *The Structure of Scientific Revolutions* (1962, 1996). Kuhn (1962) indicated the importance of paradigms for knowledge development and that clear boundaries were necessary within the social sciences — as a corresponding but inverse supposition that weak boundaries are not supportive of theoretical development. Entrepreneurship researchers have largely accepted this original definition and expressed concern around weak paradigmatic boundaries in the field (Gartner, 2001; Brush et al, 2003). This appears due to an acceptance of Kuhn’s proposition that paradigms develop from philosophical building blocks, become bounded within themselves, and thus incommensurable with different approaches and views of the world. These views have influenced the broader discourse about distinguishing between different philosophical assumptions and understanding the influence of an underpinning paradigm on research in a field — this has been true within entrepreneurship (e.g., Grant & Perren, 2002).

Watkins-Mathys and Lowe (2005) contend that a much narrower view of paradigms has since been assumed from Kuhn’s origin suppositions. For example, when classifying the entrepreneurship articles in their study, Grant and Perren (2002) noted that complexities were found with a few articles that led them to reconsider incommensurability as an attempt to bridge gaps between different paradigms (p. 195).

However, they disregard this idea after a review of prior research and contend that researchers had fallen short of sophistication. They argue that such attempts at bridge-building may be too philosophically challenging (p. 201). To Grant and Perren (2002), the research they review appeared to be a ‘mix and match’ approach which failed to achieve an inclusive philosophical position. They provide an example of research from the field that they claim used both positivist and non-positivist research approaches because the research methods employed a survey with both multiple-choice and open-ended questions and critical incident interviews. As such, this dissertation contends that Grant and Perren’s own assumptions may reflect a fundamental misunderstanding of Kuhnian paradigm’s, which have been conflated in the social sciences as metaphysical issues around the nature of reality and truth, and research methodology. In this dissertation, a more critical stance has been necessary with regard to such conclusions.

When thinking about different paradigms for social scientists to use, Burrell and Morgan (1979) provide a typology of different forms of knowledge and theory building based on a subjectivist–objectivist continuum. With dominance of an objectivist paradigm (Cope, 2005), functionalism in business and entrepreneurship may be attributed to the interests of early organisational researchers (1970s and 1980s) using scientific-based methods to increase organisational efficiency and effectiveness (Cunliffe, 2011). Watkins-Mathys and Lowe (2005) highlight that a functionalist paradigm will tend to dominate fields that are largely based on practice. While Grant and Perren (2002) show this dominance of the functionalist paradigm, they also expressed concern that other philosophical perspectives were suppressed in earlier research. For example, they suggest that early entrepreneurship research may have been trapped inside a paradigmatic boundary of positivism. As a result of this assessment, they encouraged researchers to step outside of their normal paradigm and consider alternative paradigmatic positions.

In his review of paradigm plurality and dominance in the social sciences, Morgan (2007) argues that a chief source of difficulty for theory development has been the breadth of possible inferences from Kuhn’s original definition of ‘paradigm’ (1962). Indeed, Masterman (1970) claims to have located more than 20 ways that Kuhn used the term his

book. In his later work (e.g., Kuhn, 2000) tended to avoid referring to ‘paradigms’ to avoid confusion, but these variant meanings have become central to contemporary scholarship in the social sciences, nonetheless. Unfortunately, these variant meanings have also resulted in confusion for social scientists who now must justify and defend their choice of paradigms (Morgan, 2007). Furthermore, Morgan (2007) argues that a different term, such as a ‘disciplinary matrix’ (see Figure 7), would better summarise the various forms of group commitments and consensus that scholars now associate with paradigms (p. 50).

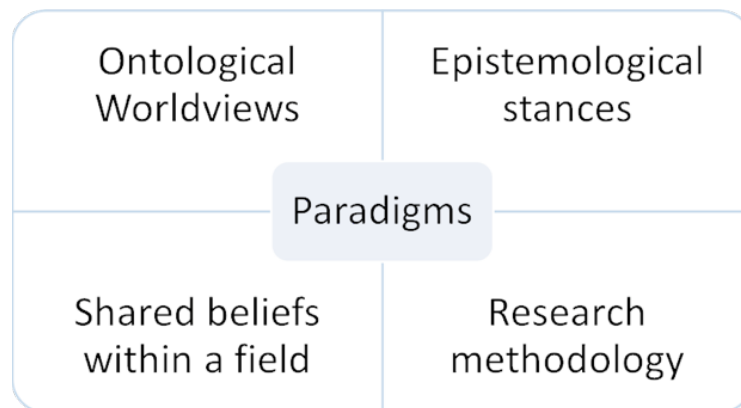


Figure 7. Paradigms within a Disciplinary Matrix (Morgan, 2007)

He offers four examples of paradigms which provide a more reflexive orientation within this dissertation towards issues of incommensurability. Thus, a derivation of these problems has moved focus in this dissertation away from the subjectivist–objectivist incommensurability debate towards a position of pluralism with an intersubjectivist lens (Morgan, 2007). Additionally, this inclination has favoured a pragmatic approach to research. The importance of research conducted with a pragmatic approach is the extent to which entrepreneurship, as a field with shared beliefs, may learn from methods used in specific settings that can then be taken and used appropriately in other settings. Furthermore, this dissertation has adopted recognition that it may be difficult to build consensus around a single paradigmatic truth (Whetten, 1989). With the adoption of metaparadigm (Marceil, 1977) and pragmatic (Morgan, 2007) stances in this dissertation, there is an assertion that an objectivist-subjectivist dichotomy does not need to be a barrier to intersubjectivity. Rather, this dissertation takes a more reflexive orientation towards

entrepreneurial and social processes that would hold mutual understanding for both an objective and real world, and that entrepreneurs within this real world can have their own unique perceptions or interpretations (Morgan, 2007, p. 72). Finally, the strength of the pragmatic approach is that concerns around methods can move beyond technical constraints about mixed methods towards a properly integrated methodology that can more fully capture knowledge in the dynamic and multidimensional aspects of entrepreneurship research.

3.3.3 Mixed Methods

This research design has assumed philosophical traditions and paradigms appropriate for exploring how an individual entrepreneurs' decision-making and coping strategies unfold over time. In following an interpretivist epistemological approach (e.g., Denzin & Lincoln, 1994), there have been important considerations for integrating a process-based epistemological stance for gathering an entrepreneurs' unfolding interpretations, as research subjects, of their personal and business experiences (e.g., Gartner & Shane, 1995; Cope & Watts, 2000; Dew & Sarasvathy, 2007), stories and introspections (e.g., Myers, 2009; Morris et al., 2012). This required methodological strategies to configure a research design capable of exploring the process-oriented and developmental nature of performance dynamics (Hisrich et al., 2007; Hitt et al., 2007; Moroz & Hindle, 2012; Frese & Gielnick, 2014). This research design used mixed methods to maximise the strengths of different methods and offset weaknesses.

In this way, the dissertation followed the pragmatic approach (Morgan, 2007) to develop a mixed methods framework guided by the principle of 'complementary assistance', where the strengths and weaknesses of one method are offset by the other (Morgan, 2014, p. 14):

At the most fundamental level, this amounts to linking your purposes (in terms of research questions) and your procedures (in terms of research methods) at every step. Choosing an

appropriate research design means finding a match between the purposes that motivate your research and the procedures you use to meet those goals.

This supportive rationale was that mixed methods would be capable of contributing richer insights to the phenomena under study would be possible than in research designs with a single method (e.g. interview- or questionnaire-only). This also follows a suggestion by Shook et al. (2003) that researchers should attempt to triangulate their findings using multi-method studies. Furthermore, the combination of idiographic methods has placed the entrepreneur at the centre of this research, thereby gaining a ‘subject-centred’ (Luthans & Davis, 1982; Smith, McElwee, McDonald, & Drakopoulou-Dodd, 2013) or ‘within-subject’ (Shepard, 2010) focus in the data collected. Finally, this selection of research methods was designed to counterbalance the limitations of cross-sectional research because of inherent limitations that prevent exploration of systemic and intra-individual changes (Low & MacMillan, 1988; Moroz & Hindle, 2012; Schmitz et al., 2012). These limitations of cross-sectional research are addressed in the research design of the present study by engaging in an idiographic longitudinal research approach (Luthans & Davis, 1982; Kozlowski, 2009; Nezlek, 2012; Roe, 2014).

This dissertation has employed mixed methods through a predominantly qualitative research design using complementary quantitative approach to engage with the problems of building temporally-oriented theories to adequately address entrepreneurial trajectories and outcomes. In-depth qualitative interviews provided contextual background and diary methods provided access to entrepreneurs’ intra-individual accounts on a continuous basis with quantitative data (Figure 8).

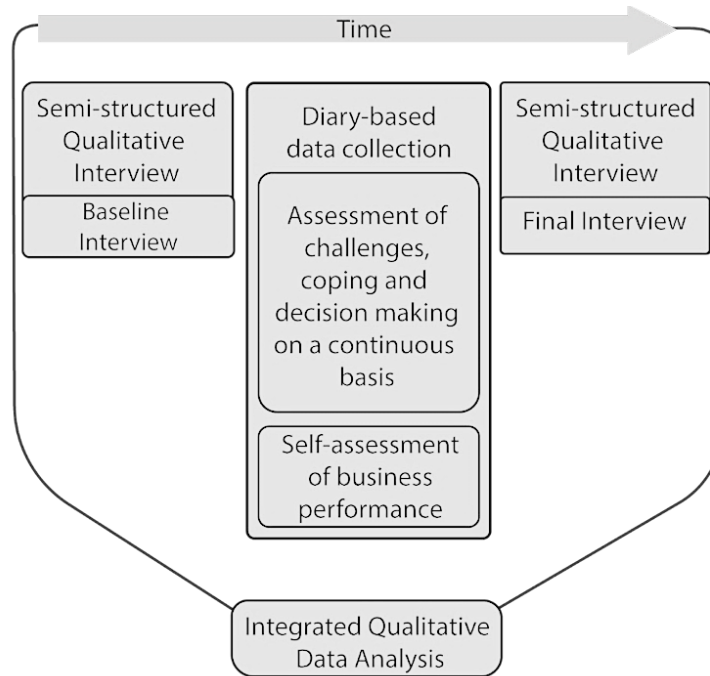


Figure 8. Diagram of this study’s mixed methods research design

The research design prioritised qualitative data collection, enacted first through semi-structured qualitative interviews, considering participating entrepreneurs’ personal lives and business activities in a holistic way. The initial interviews aimed at opening a window into the background and inner workings of entrepreneurs’ coping and decision-making strategies. This research design then integrated and enacted a second, complimentary diary-based method to establish quantitative data collection of idiographic self-reports within an intensive longitudinal structure (Luthans & Davis, 1982; Nezelek, 2012; Hoffman, 2015). An assumption within the philosophical perspectives used in this dissertation was that an entrepreneur’s unique reality might be accessed through their written or verbal expressions. A general inductive orientation was applied in qualitative analysis and synthesis of expressions for each entrepreneur based on their interview, and in a quantitative analysis of questionnaire and diary observations. The combined contributions from these two mixed methods were integrated into case studies to gain an ecologically and temporally valid understanding of changes and fluctuations for each participating entrepreneur during their observational period.

3.3.4 Longitudinal Research

This research has made use of longitudinal research design in order to gain a temporally valid understanding of changes and fluctuations for each participating entrepreneur during their observational period. The supporting rationale holds that temporal dynamics are at the heart of entrepreneurship (Bird & West, 1997, p. 5). The problem of building temporally-oriented theories to adequately address entrepreneurial trajectories and outcomes means engaging in longitudinal research approaches (Kozlowski, 2009; Roe, 2014). The longitudinal structure focused on capturing and exploring temporal fluctuations and changes (Van de Ven, 1992; Bolger & Laurenceau, 2013) in an entrepreneurs' self-observations, personal experiences, and sense-making of various personal and business challenges (Savolainen, 1993; Byrne, 2013). This recognition of temporal dynamics has been central to the rationale for development of longitudinal research methods used in the present study.

This research design has been focused on exploring early stage entrepreneurs' coping strategies and everyday decision-making processes relating to self-appraisals of performance. While entrepreneurial research has used a range of methods over the years (e.g., Chandler & Lyan, 2001; Perren & Ram, 2004) the prominence of cross-sectional research approaches means that current theories are predominantly based on retrospective accounts. This is problematic because cross-sectional research has inherent limitations that prevent exploration of *emerging* temporal phenomena (Low & MacMillan, 1988; Moroz & Hindle, 2012; Schmitz et al., 2012; Wagoner & Jensen, 2014). Furthermore, even when results from cross-sectional research has a longitudinal component, comparisons made at an aggregate level will lack dependability and transferability to processual phenomena (Fahrenberg et al., 2007) at other levels of analysis. In the present study, this process-orientation contributed to a research design that prioritised development of diary-based research methods.

The choice of diary studies as a method of data collection has been to prioritise limiting the effects of reconstructed logic and retrospective accounts (Nezlek, 2012; Wagoner, 2007). Diary methods were selected to overcome practical challenges of

conducting research on entrepreneurial processes prospectively, in part because they can reduce the risk of memory biases in personal reports of events and experiences (Nezlek, 2012; Wagoner, 2007). This was a particular concern in this study given that memory distortion is more likely with cross-sectional methods.

Longitudinal research has been necessary to advance theories and research that addresses such dynamics in how individual-level ability of entrepreneurs emerge, evolve, and change over time (Kozlowski, 2009, p. 3). In this regard, a longitudinal research design that follows how performance factors unfold for individual entrepreneurs should also allow for a more in-depth and holistic accounts of entrepreneurial development and outcomes (Cope & Watts, 2000; Rauch & Frese, 2007; Kessler & Frank, 2009; Grégoire et al., 2010). This longitudinal data should allow for an exploration of causal order in entrepreneurial processes (Kessler & Frank, 2009). This present study accomplished these objectives by implementing a research design that utilised longitudinal data collection through diary-based methods (Nezlek, 2012) with individual entrepreneurs. By definition, diary studies promote longitudinal designs (Schmitz et al, 2012). This has ensured that data collected with the longitudinal structure are temporally valid.

Diary methods in this research comprise an approach to data collection that involves frequent completion of personal records or accounts pertaining to an individual's everyday experiences (Gable & Reis, 1999; Nezlek, 2012). Hoffman (2015) has recommended for longitudinal studies, in which the goal is to examine change over time, that it is important to consider the theoretical mechanism that underlies an observed change, and to try and select a time metric that best matches that process. As multiple data collection points approach contemporaneous to events, research becomes more capable of showing changes and transformations in life trajectories, as they are still developing (Wagoner, 2009; Wagoner & Jensen, 2014). Emphasis was placed on capturing the entrepreneurial activities and events from the perspective of individual entrepreneurs as they occur (e.g., Moroz & Hindle, 2012). The rationale underlying this primarily qualitative study highlight that relevant transitions or changes for entrepreneurs can happen at any moment between contact points. In this longitudinal research design, regular contact points were triggered at fixed intervals through diary methods (see Section 3.5.3 Diary methods).

To capture data aligned with emerging experiences of entrepreneurial coping and decision-making processes, open-ended survey items allowed participants to elaborate and explain their perspectives on recent challenges, chosen response (decisions or coping strategies), and anticipated outcomes. Further closed-item survey questions assessed subjective business performance (Dej, 2010), as assessments about key contextual and personal factors they perceived as relevant at each data collection stage. The data from pre- and post-diary interviews provided this research with anchor points with which to contextualise the data collected through the diary entries during the observational period.

The research approach for this dissertation focused on pursuing the epistemological implications of defining entrepreneurial decision-making and coping strategies as an intertwined developmental process. This aligns with the definition provided by Valsiner (2000) of microgenetic methods as “any empirical strategy that triggers, records and analyses the immediate process of emergence of new phenomena” (p. 78). Thus, using this definition entails using research methods capable of following emerging temporal experiences for individual entrepreneurs through a longitudinal research design.

3.4 Research sample

This section outlines the criteria used for selection of this research sample. Theoretical sampling, also called purposive sampling, is a long-established means of identifying potential participants within qualitative research methods (e.g., Glaser & Strauss, 1967). Such sampling involves choosing cases to study, people to interview, and settings to observe with a view to finding exceptions and limitations to existing theory (Seale, 1999). With this approach, the researcher identifies and selects individuals to participate for specific reasons, grounded in the researcher’s judgment (Johnson, 1990). The selection criteria established shared attributes among the entrepreneurs within the sample and enough diversity to show a range of responses to the phenomenon under study (e.g., see Bauer & Aarts, 2000). These shared and diverse attributes made up a contextual layer by considering both personal and environmental factors (Mischel, 1968; Hitt et al., 2007; Hmieleski & Baron, 2009; Drnovsek et al., 2010; Baron, 2013).

These theoretical considerations were relevant to the sampling selection used in this study by using the following confirmations requested of potential participants on the first page of the preliminary (pre-diary) questionnaire. These were not exclusion criteria, necessarily, because further confirmations were included in the research design using the following interview questions and the researcher's judgement for inclusion:

- a) Business viewed as 'technology' start-up (3.4.1 Entrepreneurial profiles)
- b) Active involvement in 'start-up' company (3.4.2 Degree of start-up involvement)

If respondents selected 'unsure' or 'no' on these points, clarification was sought in this follow-up question about which start-up stage they identified with. Respondents were allowed to select any option that applied to their current situation:

- c) In what way do you see yourself?
 - Freelancer/Sole proprietor
 - Exploring viability of business idea
 - I have an innovation to build into a business

This information was collected at the outset of data collection in the pre-diary questionnaire, described in sub-sections below.

3.4.1 Entrepreneurial profiles

Entrepreneur profiles were developed for each participant of the present study to facilitate the research design. Theoretical sampling was applied in this research design based on the goal of gathering a range of perspectives from entrepreneurs with different socio-demographic backgrounds (e.g., Katz, et al., 1993; Drnovsek & Glas, 2001; Honig, 2001). The purpose of establishing these entrepreneurial profiles was to establish an origin and thereby frame development trajectories according to entrepreneurs' perspectives that may contribute to behavioural tendencies, decision biases, and coping strategies. In the preliminary questionnaire, entrepreneurial profiles were established in three main parts by asking participants about their general associations with 'Entrepreneurship' and 'Being an Entrepreneur', and then their business and personal information. Other backgrounds for

businesses information included primary industry, countries of business operation, products or services offered, whether any specialist technology was used to deliver products or services and role in the company (see Table 4).

Table 4. Participant profile questions from preliminary questionnaire

Response Category	Short name	Question
General Association	What comes to mind: 'Entrepreneurship'	In general, what comes to mind when you think of 'entrepreneurship'?
	What comes to mind: Being an 'Entrepreneur'	What comes to mind when you think of being an 'entrepreneur'?
Business Information	Primary Industry	What is the primary industry of your business?
	Specialist Technology	Do you use any specialist technology to deliver your products or services?
	Operations Outside Country Residence	Does your business operate in countries other than the one you reside in?
	Co-founder/Business Partner	Have you started this business with a co-founder/business partner?
	Co-founder Role	What role(s) does this co-founder/business partner play in the business?
	Business Ownership	How much of this business do you personally own?
	Other Directors	Do you work with other company directors / managers?
Personal Information	Gender	What is your gender?
	Age	What year were you born?
	Spouse/Partner	Do you currently have a spouse/partner?
	Education Level	What is the highest level of education you have completed?
	Country of Residence	Which country do you reside in?

This personal information included demographics, such as gender, year of birth, whether they have a spouse or partner, and their highest level of education (Table 5). All participants were males ($n=6$) with ages that ranged between 28 and 49 ($m=31.5$). Participants were split equally between not having a current relationship ($n=3$) and having a spouse/partner ($n=3$).

Table 5. Entrepreneur participant demographic characteristics

Age range	Below 25	0	Spouse/Partner	Not at this time (single, divorced, etc)	3
	26-33	1			
	34-41	4			
	42-49	1		Yes, spouse / partner (wife / husband, girlfriend / boyfriend, etc)	3
	Above 50	0			
Gender	Male	6			
	Female	0			

Entrepreneur profiles included a range of different business specialisms, personal backgrounds and geographic locations suitable for theoretical sampling (Table 6). The participants' levels of education ranged between PhD ($n=2$), Masters ($n=2$), Undergraduate ($n=1$) and High School ($n=1$). These details are further provided for each entrepreneur under Section 2 Individual Case Analysis.

Table 6. Entrepreneur participant education levels

Postgraduate/PhD	2	Social Science, Humanities, Italian Literature
Postgraduate/Masters	2	Business, Technology, Humanities
Undergraduate	1	Computer Science
Secondary / High School	1	
Primary / Elementary (or Lower)	0	

Additionally, this study did not limit geographic location artificially. Given that the research focus was concerned primarily with each entrepreneurs' subjective perspectives of their respective business contexts provided flexibility for recruitment. That is, entrepreneurs might experience a range of contextual or external barriers to the entrepreneurial activities, such as introducing their new products and services (Morris et al., 2006) or modifying their business models (Costa, 2014), but this study did not restrict participation to only objectively verifiable contexts or geographic regions. Rather, this research focused on the specific contextual factors or barriers that each entrepreneur reported, based primarily on their interpretations and perceptions.

For these reasons, recruitment included participants' country of residence in the United Kingdom (n=5) and United States (n=1), as well as those from different countries of origin (n=4). Furthermore, participants were asked if their business operated in other than where they resided to determine who engaged in international business. These participants fit within the sampling framework as those who operated either outside (n=2) or within (n=4) their countries of residence (see Table 7).

Table 7. Entrepreneur participants country of residence and origin

Of residence	1	United States
	5	United Kingdom
Of origin	1	Argentina
	2	United States
	2	Scotland
	1	England

3.4.2 Degree of start-up involvement

This sub-section discusses the degree of involvement criteria for sampling selection. Previous literature has suggested that entrepreneurs who are close to their business and heavily involved in may feel more pressure to make rushed decisions (e.g., Smith et al., 1988). This included assessment of the entrepreneurs' role in the business, given that

entrepreneurs may have multiple roles that they must balance at any given time, both within their business and personal lives (Williams, 1984; Wincent & Örtqvist, 2009). Further consideration was given to the entrepreneurial status (Yang & Aldrich, 2012), role in the business, personal stake and degree of effort and involvement (e.g., Reynolds, 2007) of each participant in the running of their businesses. The degree of involvement in start-ups was important for assessing participants' closeness to their business in 'operational matters' (Smith et al., 1988). This was important for the diary methods of this research (see 3.5.3 Diary methods).

These assessments aimed at gathering the engagement of each entrepreneur in their business, given that respondents who undertake infrequent activity might fail to provide adequate information during the observational period. Thus, assessments were gathered at the outset of data collection in the pre-diary questionnaire and then after the observational period concluded. The questionnaire provided the first assessment with three Likert-type statements for respondents using level of agreement, along with an estimate of the hours per week spent working their start-up. These criteria were applied by the researcher as a qualitative assessment in final stages of case study analyses (see Table 8).

Table 8. Criteria assessing entrepreneurial status & degree of engagement

Response Category	Short name	Question	Field type	Response options
Start-up involvement	Personal Stake	'I have a strong personal stake in my start-up's success.'	Likert-type scale	7-point: Agree-Disagree
	Business Decisions	'I am actively involved in the key business decisions.'		
	Improving Operations	'I am actively involved in improving the daily operations of my start-up.'		
	Hours per week of work	Please estimate (in hours per week) the time you generally work on your start-up:	Open-text	
	Company Role	What is your current role in this company?	Checkbox options	Founder/Co-founder Owner/Co-owner Director/Manager Uncertain

3.4.3 Technology entrepreneur

Criteria for sampling selection included entrepreneurs' self-perception of being a 'technology entrepreneur'. The technology sector was selected for this research following theoretical rationale, based on its tendency to produce start-ups that 'rapidly develop within an environment dominated by continual and rapid changes' (Onetti et al. 2010, p. 363). Following guidance from Nezlek (2012), this was a key theoretical criterion aimed at increasing likelihood that phenomena of interest in this research might be captured during the diary study observation period that would be revelatory of the entrepreneurs' personal and business development and resilience over time. Because the boundaries of the 'technology sector' were difficult to define objectively, these criteria were based on participants' assessments of whether they were in this industry (see 3.5.1 Participant recruitment and preliminary survey). Each entrepreneur was involved with technology and innovation in their sector.

3.4.4 Within 5 years of venture

An objective for this sample frame was to identify nascent entrepreneurs involved in new ventures (Lichtenstein, Carter, Dooley, & Gartner, 2007) as a way to examine entrepreneurs and their companies that were still in flux. However, what technically counts as a venture creation may differ based on the entrepreneur's perceptions, intentions or behaviour, and at various points along their path to exploiting opportunities (Katz & Gartner, 1988; Shane & Venkataraman, 2001; Yang & Aldrich, 2012). For example, scholars point to pre-requisite actions (Reynolds & Miller, 1992) such as acquisition of resources (Bygrave, 2004), strategy development (Ucbasaran, Westhead, & Wright, 2001), and when innovations are brought to a commercial market (Davidsson, 2008). Previous studies have also defined venture age based on time of exposure to business-related risks (e.g., Allison, 2010). For this reason, this study selected participants based on their self-determination of whether they started business activity within a 10-year timeframe in order to avoid complications related to what technically counts as a business starting (Table 9).

Table 9. Criteria for assessing years in business and industry

Response Category	Short name	Question
Time of activity	Years of Industry Experience	How many years of experience do you have in this industry?
	Years Active in Business	How many years have you been active in this particular business?

While the initial sampling frame was limited to entrepreneurs within 10 years of starting their venture, the actual sample of entrepreneurs obtained for this research (n=6) initiated their ventures within five ($\bar{x}=1.35$; min=0, max=5) years prior to diary study observations.

3.4.5 Willing to participate and capable of reporting requirements

The ‘theoretical sample’ for this study was comprised of those with knowledge of entrepreneurial coping and decision-making (i.e., because they have previously experienced it first-hand), who were willing to discuss new challenges and experiences during the diary study and qualitative interviews. This was confirmed for all participating entrepreneurs through the study’s informed consent protocol (see Appendix B. Participation Consent).

3.5 Data collection

This section describes data collection methods and strategies for ensuring quality of the research. This includes tools, instruments, and procedures used within this research for participant recruitment, conducting interviews and diary methods (see Figure 9).

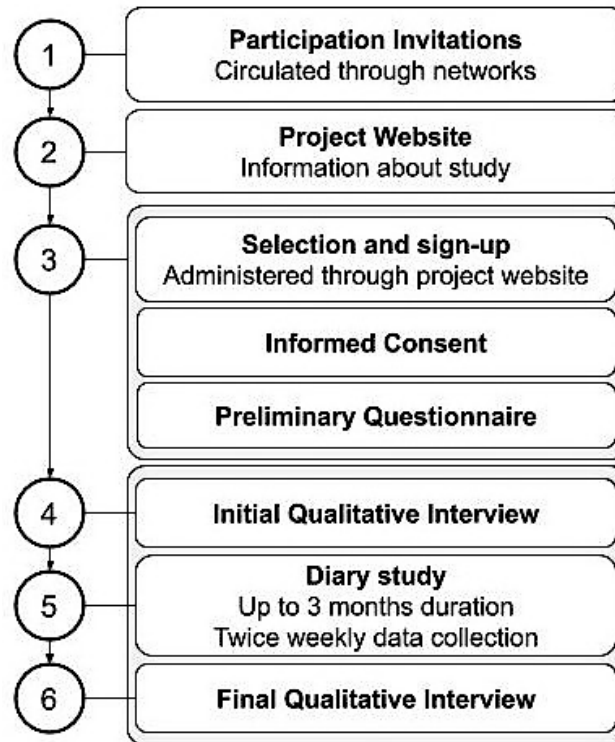


Figure 9. Overview of data collection procedure

Data collection for this study commenced in November 2016. Participation was invited through a dedicated project website containing information about participation in the research and main diary study and the sign-up form. Participants were first asked sampling criteria questions, then consent form, and then the preliminary questionnaire. Entrepreneurs were invited for interview based on selected criteria (Patton, 1990). Initial interviews were conducted from December 2016 to the end of January 2017. Following interviews, in-depth semi-structured interviews were scheduled and conducted with seven participant entrepreneurs before and after a 3-month diary study which was designed to gather self-report responses from study participants at regular intervals (twice weekly). Diary data collection began in January 2017 and completed May 2017. Final interviews were held with participant entrepreneurs between May and June 2017. Each of these data collection methods are described in the sub-sections below.

3.5.1 Participant recruitment and preliminary survey

Participating entrepreneurs received preliminary open invitations to inform them about the study and gain informed consent to participate. These invitations were sent through existing entrepreneurial, business and university networks and social media accounts associated with entrepreneurship (Facebook, Twitter, LinkedIn). Further invitations were offered through personal and face-to-face networking at business and start-up events. Snowball sampling was employed, whereby initial participants helped to guide further identification of potential participants. Confirmed participants were encouraged to share the invitation within their networks to inform other potential participants about the study and encourage entrepreneurs to participate. Recruitment included an offer for non-monetary compensation in the form of provision of practical guidance based on findings to study participants. The first step of the data collection process included asking potential participants to enrol through the questionnaire available online at the study website.

The project website included further information about the purpose and intent of the study and levels of commitment required (e.g., time) for participation. Fisher and To (2013) recommend that at least one lengthier questionnaire should be used to understand the individual, social, and environmental contexts of research participants. Entrepreneurs were provided information about the purpose of research, how data would be used, data privacy and confidentiality (see Appendix B. Participation Consent). The online questionnaire for this research was administered through the study website located at the domain: <https://www.entreneurdiarystudy.org> (see Appendix C. Recruitment Website). This questionnaire included registration, informed consent and a preliminary survey. The registration included form logic to ensure interested participants met sampling criteria (see 3.4 Research sample) and answered only questions relevant to them. When sampling criteria were satisfied, further contextual information was requested from entrepreneurs, including their personal and business details (see Table 4).

The information from the questionnaire gathered key personal details about participants, selection criteria and set the stage for subsequent face-to-face interviews. This questionnaire provided baseline measurements (e.g. subjective business performance appraisals) prior to the diary research commencing (see Table 12). Additionally, information from the questionnaire was used to tailor interview questions to individual participants. Entrepreneurs were invited for interview requests based on these selected criteria (Patton, 1990). All participants meeting inclusion criteria (see 3.4 Research sample) were invited to the second step of semi-structured qualitative interviews. Soon after completing the initial interview, study participants then commenced the diary portion of this research.

3.5.2 Interview methods

This sub-section discusses interview methods used in this study. This study used semi-structured qualitative interviewing to access contextual information relevant to entrepreneurial decision-making and coping processes. Semi-structured qualitative interviewing was ideally suited to gather the detailed views of an individual on a specific topic, while maintaining the flexibility to draw out further explanations on particular statements (Weiss, 1994). By minimising limits on scope of discussion, semi-structured qualitative interviewing allows participants to reflect on their knowledge and experience in a more natural and in-depth manner than would be possible with questionnaires or structured interviewing. Moreover, semi-structured qualitative interviewing acknowledges the joint construction of knowledge between interviewer and participant. That is, this approach recognises that knowledge is co-constructed between researcher and participant, as meanings and interpretations can emerge during the course of an interview (Morse, 1998, p. 52). Thus, intersubjectivity is reached discursively in the interview, using probing and follow-up questions to gain sufficient elaboration to be confident the participants' perspective is being understood.

Interviews were conducted with all participants at the beginning and end of the diary-based data collection period (see Appendix A. Interview Guide). Preliminary interview questions addressed both personal and business backgrounds of each

entrepreneur to bring to light the relevant aspects of their life histories up to that point, connecting to personal background (e.g., education) to establish relevant life history. Then interview questions were aimed at understanding participating entrepreneurs' existing decision-making approaches with relevant examples of key entrepreneurial challenges up to the point of the interview and how these challenges had been addressed. If challenges were perceived by the participant as resolved, then questions were asked about outcomes and results. On the other hand, for unresolved entrepreneurial challenges (i.e., those still being addressed by the entrepreneur), further questions were asked about their expectations for how these pending challenges might unfold. Further questions were asked to ascertain the entrepreneur's assessment of business health, such as prospects for financial revenue and sales, their current situation with staff or business partners, business advisors or investors, and uncertainties they perceived in their personal and business future. This information was used to contextualise entrepreneurs' responses during the study timeframe.

After the diary study completed, the researcher conducted final interviews with all participants. This final interview started with matching questions from initial interviews. The final interview also included questions about entrepreneurs' experiences during the diary study and encouraging reflection about participation key events and challenges presenting during the diary study. In this interview, diary entries were used to prompt discussion about issues that had emerged and study participation. All participants were debriefed about the challenges they faced, with discussion about their thought processes, business outcomes, and asking for their perception about how the future might unfold for them personally and their entrepreneurial venture. The interview aspect of the research included the following steps:

- 1. Invitation to interview.** All potential entrepreneur participants were sent invitations and information describing the research and what was asked of their participation.
- 2. Interview consent.** Those who indicate interest in joining the research study were given 24 hours to reconsider after providing signatures on informed consent. It was made clear that participants could withdraw from the study at any time.

3. **Scheduled interviews.** Those who consented to participate in the project were asked to agree to a date and place for the initial interview. Scheduled interview times were adjusted as needed based on commitments or operational pressures affecting participants. Interviews lasted from 40 to 60 minutes, aligned with methodological literature (Weiss, 1994, p. 56). Semi-structured qualitative interviews were conducted in person or Voice-over-IP service (VoIP), including Skype, Google Voice and Hangouts.

4. **Audio recording, transcription and data security.** Interviews were audio recorded and transcribed by the interviewer. Once transcription of audio was complete, transcripts were entered into the computer-aided qualitative data analysis software NVivo for analysis. After data collection completed (so all data can be linked), audio files were securely erased in order to protect participants' identities. All stored transcripts were fully anonymised. The original data was stored by the investigator on a password-protected server. A list of numerically labelled interviews and the associated participant's details were held by the investigator, including names, companies and positions, also stored on a password-protected computer.

Preliminary interviews

Interview questions addressed both personal and business backgrounds of each entrepreneur to bring to light the relevant aspects of their life histories up to the observational period. To develop deep insights into entrepreneurs' starting context, semi-structured qualitative interviews were conducted with all entrepreneurs participating in the research. Interview questions addressed existing coping and decision-making approaches employed by participants by requesting examples of adversity encountered and how these adversities had been addressed (see Appendix A. Interview Guide). For unresolved adversity, respondents were asked to provide future expectations for how the adversity might play out based on their current context, resources and available knowledge. Several research topics guided the development of interview questions in this study, which were derived from the research questions for this dissertation:

1. How have entrepreneurs used coping strategies to overcome adversity?
2. How have entrepreneurs' decision-making been affected by sources of adversity encountered in their businesses?
3. What role have coping strategies and decision-making approaches played in entrepreneurs' appraisals of their business performance and personal capacity?
4. How have entrepreneurs' coping and decision-making practices affected their capacity to overcome one-time, intermittent and persistent sources of adversity?

These questions fit within a semi-structured format that allowed relevant aspects of entrepreneurs' life histories to emerge during interviews.

Final interviews

After the diary study observational periods were completed for each entrepreneur, the researcher conducted final semi-structured interviews. The final interview initially matched the semi-structure interview format and question focus from the preliminary interview in order to allow comparisons with preliminary interviews. This final interview included an interviewer-facilitated self-analysis in which participants looked back at their own entries and offered comments about what they thought was noteworthy. In this way, diary entries were used to prompt discussion and further reflection with study participants about the entrepreneurial challenges they faced and their experiences for during their study participation. Finally, this final interview also included participant debriefing from the research. All participants were debriefed in relation to the challenges they faced, with discussion about their appraisals and thought processes, business outcomes, and their expectations for how the future might unfold.

Data preparation

Qualitative analysis for interviews began immediately following data preparation. The data were cleansed before data analysis began by removing any obvious errors, such as out-of-range responses or duplicate reports (McCabe, Mack, & Fleeson, 2011). Each

of the interviews carried out for this study were audio recorded and transcribed using Adobe Audition, Microsoft Word 2011, and Mac Operating System. The transcripts were processed in two passes. Comments, annotations and memos were added on the first pass. On the second pass, repeated filler words and phrases (“um”, “kind of”, “sort of”, “you know”) and mispronunciations were discarded to provide a smoother, more straightforward narrative (Miles & Huberman, 1994; Jensen & Laurie, 2016).

3.5.3 Diary methods

This sub-section discusses the diary methods used in this dissertation with the aim of justifying the sampling method. The present study was designed to capture the unfolding perspectives from participating entrepreneurs to gain greater access to developmental processes. In order to obtain more dynamic information, this research approach has entailed the design and implementation of intensive longitudinal methods. These methods involved sequential measurements and repeated observations requested from entrepreneurs about their decision-making and coping strategies regarding their entrepreneurial endeavours. These repeated observations used shorter and more frequent data collection intervals to establish micro-processual dynamics of decision-making, coping strategies and entrepreneurial outcomes.

This research approach aligns with calls in the entrepreneurship literature for further theoretical development regarding emerging organisations (e.g., Yang & Aldrich, 2012). This requires greater emphasis on more process-oriented research designs capable of capturing the entrepreneurial activities and events from the perspective of individual entrepreneurs as they occur (e.g., Moroz & Hindle, 2012). In this research, development of intensive longitudinal methods has involved sequential measurements sufficiently frequent to allow characterisation of unfolding temporal processes (Bolger & Laurenceau, 2013) in a sample of early stage entrepreneurs actively engaged in establishing their ventures. An intensive longitudinal research approach was used to help establish within-person links between events that happen in earlier time frames with the effects and outcomes in subsequent events (Schmitz et al., 2012; see Section 3.6.3 & Figure 12). As data collection approaches contemporaneous to events, research becomes more capable of

showing changes in development (c.f. microgenetic methods; Valsiner, 2000; Wagoner, 2009; Wagoner & Jensen, 2014). Indeed, highly relevant to this study design has been exploration of certain entrepreneurial phenomena that may appear stable to researchers when methods only take a single snapshot in time. However, these same entrepreneurial phenomena may in fact fluctuate or change when multiple snapshots are taken and considered in a wider time-window (Roe, 2014). This rationale provides a conceptual basis for development and implementation of diary methods.

Within entrepreneurship literature, longitudinal research is underpinned by recognition of entrepreneurship as a multi-stage process (Hisrich et al., 2007; Hitt et al., 2007; Moroz & Hindle, 2012; Frese & Gielnick, 2014). In this regard, longitudinal methods may be attuned to investigating such processes as it unfolds, such that entrepreneurs will not know *a priori* the outcomes of events and activities (Van de Ven, 1992). Indeed, diary methods have previously been applied in research seeking to clarify process-like phenomena (Gable & Reis, 1999; Nezlek, 2012). Diary studies commonly use theoretical rationale for sampling based on the phenomenon being studied to determine the sample size, intensity and number of observations (Fisher & To, 2012; Nezlek, 2012). In entrepreneurship, previous studies have used a variation of diary methodology referred to as ‘experience sampling’ or ‘ecological momentary assessment’ (e.g., Hektner, Schmidt, & Csikszentmihalyi, 2007; Fisher & To, 2012). This approach has involved randomly signaling or providing notifications to research participants many times throughout a day to provide their accounts. As a sub-approach within diary methods, the aim of sampling is to capture the nature and quality of participants’ current activities or experiences (Hektner et al., 2007).

Such protocols might be set for multiple random signals throughout a day to see where or what an entrepreneur is doing. The weakness of prior experience sampling studies has been reported as poor compliance rates over-time because of the intensity of data collection protocols; this in turn can have an effect on data quality, which may decline in longer studies (Fisher & To, 2013). What these techniques have in common is that individuals provide descriptions of activities on a regular basis (Reis & Gable, 2000). However, activity tracking through ‘experience sampling’ or ‘ecological momentary

assessment' are for different purposes from the present study. Furthermore, experience sampling would support different argumentation because they do not often make use of theoretical frameworks, which has been a focus of the present study.

In the present study, priority has been placed on gaining extensive data from individual participants rather than participation of a large number of individuals. The design and implementation of this primarily qualitative study has reflected important implications for process-based epistemology within entrepreneurship (e.g., Moroz & Hindle, 2013). Diary methods were used to address the research question by following the trajectories of individual entrepreneurs over a 3-month observational period within a longitudinal research design. During the diary study, repeated survey items were used to elicit responses from participating entrepreneurs, who provided their subjective appraisals of their business challenges and performance over time.

Established protocols for diary methods were used in this study, which followed a time-interval contingent protocol to trigger data collection. There were closed-ended data on subjective measures to provide anchor points with which to contextualise the qualitative data from the initial questionnaire, diaries and interviews. Here, the diary- and interview-based qualitative elements of the study were combined within a 'complementary assistance' mixed methods framework (Morgan, 2007 & 2014). In this way, the motivation was to connect research methods so that each method enhances the effectiveness of the other, without necessarily overlapping in coverage. The difference from the design of this dissertation is use of a theoretical framework and building on process theory, this requires an understanding of the challenges and dilemmas entrepreneurs are facing, their degree of stress in relation to these decisions, ability to cope and accounting for time-lagged effects.

Defining terminology

First, it is important to highlight the differences in terminology and the levels of analysis to which they refer. In entrepreneurship, the 'subject-centred' focus (Smith et al., 2013) or 'within-subject' perspective (e.g., Shepard, 2010) often stands in contrast to the

macro-level of analysis (Aldrich & Wiedenmayer, 1993). Commonly, individual- or person-level regards the differences between entrepreneurs, while the macro-level regards differences between marketplaces. However, further clarification is necessary from the diary literature (e.g., Nezlek, 2012) to extend the common notion of a “person-level” as between-person. In the diary literature, the term ‘person-level’ is used interchangeably with ‘between-person’, while the term ‘diary-level’ is often used interchangeably with ‘within-person’ (see Table 10).

Table 10. Differences between types of individual analysis

Types of Individual Analysis	Level of Analysis	Process Level	Unit of Observation	Organising Unit
Within-person	Diary-level	Individual Processes (Mood changes, etc.)	Diary Entries	Intervals between observations (Time)
Between-person	Person-level	Group Processes (Relationship changes, etc.)	Entrepreneur	Cross-case analysis

Second, it is important to clarify that diary scholars view relationships at these two levels of analysis as both technically and conceptually distinct. That is, relationships between constructs analysed at the person-level are technically unrelated to relationships between these same constructs measured at the diary (or within-person) level (Nezlek, 2012). This is because relationships at these two levels of analysis may represent different psychological phenomena (Hoffman & Stawski, 2009; Affleck et al., 1999; Nezlek, 2012). Within a qualitative paradigm, analysis can be extended to between-person differences in such within-person relationships (Nezlek, 2012). Thus, justification is provided that analysing relationships at the between-person level can provide a fitting complement to within-person level of analysis.

Unit of Observation

The data collection approach in this study involved recognition that *diary entries* represent the *observational unit* for the sample of entrepreneurs. The unit of observation can be organised according to the length of time respondents are expected to maintain the diary, or observational period, or as the frequency with which respondents are asked to maintain the diary, and how much information is provided on each occasion. It is

important to note that diary methodology commonly uses organising units that determine the type of record provided by a sample, with the most common organising unit in diary methods being a *daily* record or account (Nezlek, 2012). However, diaries are not limited to using *days* as the organising unit. That is, diary accounts can be created after different amounts of time have passed. When diary accounts use a specific period of *time* (rather than a *day*), the data collection approach is generally referred to as ‘interval-contingent’. However, depending on the focus of a study, diary accounts may also be organised in terms of event types, known as an “event-contingent” approach, whereby participants provide accounts only when certain types of events occur.

Diary study designs may justify use of notifications to inform participants that an account is needed; this data collection approach is referred to as ‘signal-contingent’. Using diaries as a social scientific research method to investigate individual entrepreneurs’ perspectives involved different data collection approaches than the common notion of a daily diary. The diary protocols for each of these data collection approaches (Wheeler & Reis, 1991) have been considered in the design of this study overall and the selection of organising units specifically. Protocols for diary methods used in the longitudinal research design for the present study developed an approach that combined protocols and accounted for each of these contingencies.

Levels of analysis

Entrepreneurship scholars have proposed that multilevel and cross-level research shows promise for the field. In fact, Neergaard and Ulhøi (2007) have argued that a wider range of methods is required to uncover the complexity in entrepreneurial phenomena at different levels. Cogent explanations are provided by Affleck, Zautra, Tennen, and Armeli (1999) for the importance of distinguishing relationships at different levels of analysis. Additionally, Baum et al. (2001) recommend that researchers integrate cross-level effects by examining the practices entrepreneurs use to formulate and implement their strategies. Shepherd (2011) suggest that multilevel research on entrepreneurial decision making can be used to explain individual differences in how opportunities are selected. Scholars also contend that macro perspectives are less capable of explaining the individual-level

phenomena (e.g., Brundin, 2007) or organisational-level performance (e.g., Baum, et al., 2001). Hofer and Sliwinski (2006) suggest that longitudinal research is capable of exploring phenomena at multiple levels of analysis. The research design for present study has been developed from these perspectives.

Within-person variation

This dissertation's research approach has focused on temporal stability and change (Sminia, 2011) in an individual entrepreneur's decision making and coping strategies for a range of performance-related effects (Baum et al., 2001). For this reason, Shepard (2010) has contended that investigations of subjective entrepreneurial phenomena might benefit from the 'within-subject' perspective. Fundamentally, this research approach is connected to a 'subject-centred' (Smith et al., 2013) or 'within-subject' (Shepard, 2010) focus that is further aligned with a process-based epistemology (Moroz & Hindle, 2012). This perspective holds that an individual's perspectives and recollection of events are susceptible to change over time (Bogdan & Taylor, 1975; Xanthopoulou et al., 2009). For the purpose of this dissertation, *within-person (WP) variation* is used to describe and explain the effects and interference of 'intra-individual' events as triggers for fluctuations and changes during the venture creation process (Bolger & Laurenceau, 2013). This intensive longitudinal approach was developed to establish entrepreneurial trajectories.

Entrepreneurship scholars have attested to the importance of multi-phase perspectives and a need for entrepreneurship theory to specify how performance dynamics might cross between different phases (Hisrich et al., 2007; Hitt et al., 2007; Moroz & Hindle, 2012; Frese & Gielnick, 2014). Methodological implications come from recognition that entrepreneur's perspectives, interpretations and experiences of events could change depending on time and context (Bogdan & Taylor, 1975; Denzin & Lincoln, 1994). An important distinction when conducting longitudinal research relates to the type of WP variation to be examined. In order to provide insights into the functional form of *change*, as well as causes and consequences (Bolger & Laurenceau, 2013), it is important to identify patterns through a process-oriented lens. This includes degree of *variation* (type of observed fluctuation or change) and within-diary appraisals that are reflected in

different levels of observed or reported stability. Thus, longitudinal research has been necessary for entrepreneurship to advance theories and research that addresses within-person dynamics that emerge, evolve, and change over time (Kozlowski, 2009, p. 3). The diary methods in this study were designed to address various problems within entrepreneurship for building temporally-oriented theories for within-person change.

In this regard, an idiographic and longitudinal research design that follows performance factors as they unfold for individual entrepreneurs should allow for a more in-depth and holistic account of entrepreneurial development and outcomes (Cope & Watts, 2000; Grégoire et al., 2010). However, WP variation can only be observed when individual entrepreneurs provide more than one report. For example, intra-individual differences in experiences of stress may be related to intra-individual differences in negative moods, but such relationships may show more tenuous links when observed more frequently. Such WP relationships might be expected to help establish links between events that happen in earlier time frames with subsequent effects (such as, stress experiences followed by coping responses) that become apparent in later stages (Hoffman & Stawski, 2009; Schmitz et al., 2012; Rizvi & Ritschel, 2014). Establishing WP stability and change patterns in this study have required that data were collected at more than one time point, as in the diary data for the present study. Thus, to explore the factors over-time that impact the individual-level means engaging in longitudinal research approaches (Roe, 2014). The primary benefit of using longitudinal study design in this dissertation is its capacity to inform theoretical contributions about WP variations.

However, providing a comprehensive picture of factors that impact the individual-level is beyond the scope of this dissertation. Rather, this dissertation explores influential factors both within and outside of the context of business venture creation which can impact an entrepreneurs' ability to development their business (Baum et al., 2001). In this way, this study engages with a key question for entrepreneurship research that concerns how performance factors unfold for individual entrepreneurs over time (Shaver & Scott, 1991; Corner et al., 2017) within challenging and uncertain business contexts and business trajectories. This has been the central concern for the research design and methodological approach used in this dissertation. An interpretivist perspective (Gioia & Pitre, 1990) was

applied to the diary data to highlight the developmental nature of meanings and interpretations entrepreneurs bring to their ventures and everyday business activities. This has included an inductive orientation and process-oriented analytic perspective (see Section 3.6.3 Supplementing Inductive Orientation with Process Analysis).

Sampling Theory

The application of basic sampling theory to this study helped to establish the number of observations needed within the diary method of data collection. Concepts from longitudinal research design (see Section 3.3.4) are applied herein. In longitudinal studies, it is important to consider the theoretical mechanisms that underlies process (Van de Ven, 1992; Van de Ven & Sminia, 2012), observed changes or fluctuations and select a time metric that best matches that process (Hoffman, 2015). Fundamentally, sampling theory pertains to the frequency of observations that can be expected to gather and prevent loss of enough accurate information to understand the phenomena. The use of sampling theory in this study became relevant when considering ‘technology sector’ entrepreneurs as target sample, given that this selection criterion was based on rapid developments in the business and economic context (Onetti et al., 2010) and the assumption that greater observation of the phenomena under study would be possible in a shorter period of time.

Therefore, the principal question for this diary study was about the frequency of entrepreneurial challenges, along with connected decision-making and coping, whether phenomena of concern happened daily, weekly or monthly. Applying sampling theory highlights that lower frequency in events reduce the number of observations required for accurate assessment of phenomena (Nezlek, 2012). In fact, both the need and benefits for using a diary method diminish when the phenomena under study is infrequent. Thus, there are trade-offs between frequency of accounts, amount of information needed to explore research questions, quality of data, and sustained participation (Nezlek, 2012). Principles guiding the study design are as follows:

1. Phenomena occurring less frequently, requires the study to be longer.
2. When information is requested more frequently, less information can be requested on each occasion.
3. Less intense protocols provide better quality data, reflecting an understanding that cognitive and temporal resources can be limited for an entrepreneur participant.
4. Fewer number of entries per participant lower errors will be that can accompany fewer observations.
5. The level of intensity in protocols can be determined by the number of responses per participant and the number of participants needed.
6. More participants allow for more missed signals, and the effect of missed signals is lessened on lagged analyses.

These connect when planning sample sizes and number of observations needed within a diary study. For example, while daily dairies would be ideal, the planned use of twice-weekly frequency for this study offered a compromise between feasibility from participants' perspectives, so more likely to gain participation than daily requirement, and the research need for contemporaneous or near-contemporaneous accounts. The following diagram represents the main elements of this diary study and how they interconnected in the research design (Figure 10).

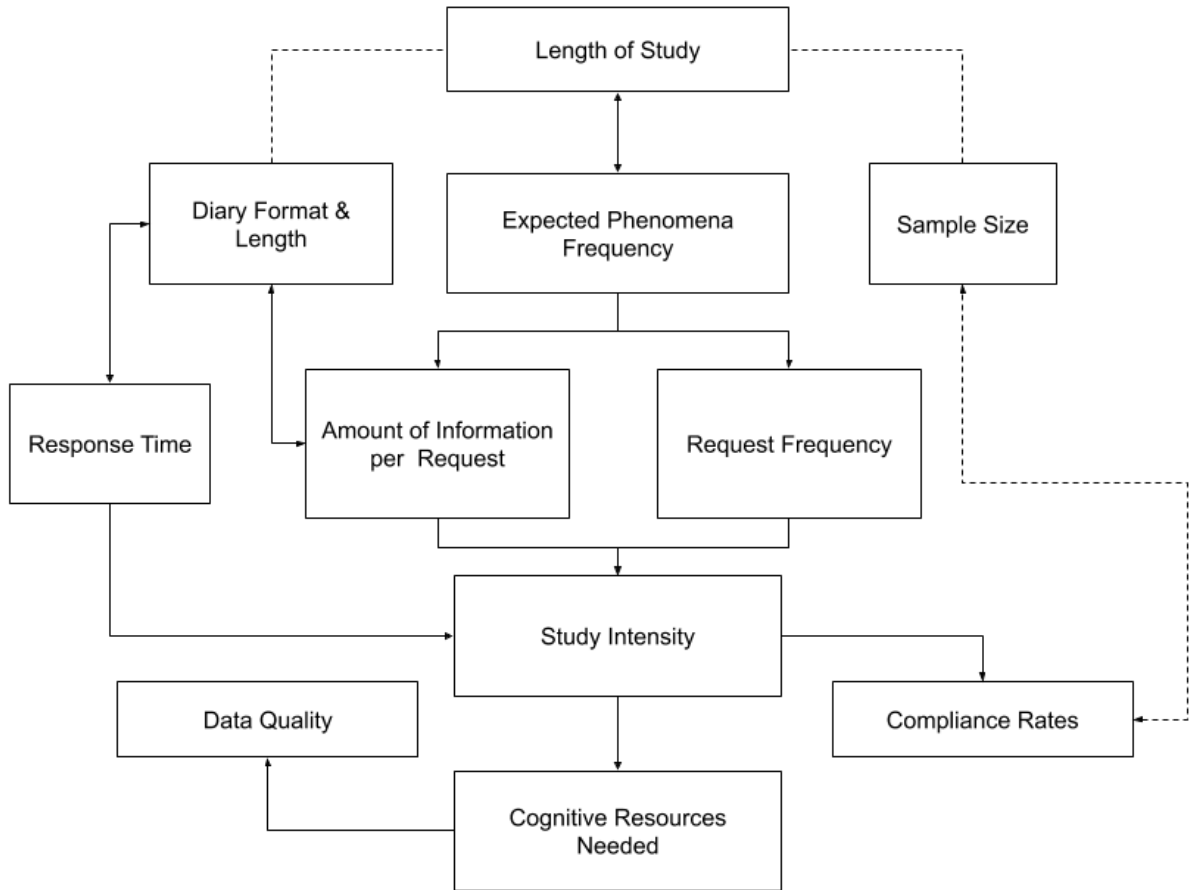


Figure 10. Interconnected elements of diary study design

This study guidance for diary methodology offered by Nezelek (2012), highlighting trade-offs between the *length of study*, *number of accounts requested*, and the *amount of information requested in each account*. These factors together comprise the study intensity that participants experience through the data collection protocols. The present study design balances this *intensity* with the need to achieve project aims to ensure that an entrepreneur's day-to-day life would be minimally affected by participation. Specifically, while daily dairies would have been ideal for this study, a less stringent data collection protocol was chosen which involved collecting data on a twice-weekly frequency.

Sample Size and Study Design

This sub-section summarises the specific rationale and key characteristics of the data that were collected with diary methods.

1. Length of study

Hoffman (2015) has recommended for longitudinal studies, in which the goal is to examine change over time, that it is important to consider the theoretical mechanism that underlies an observed change, and to try and select a time metric that best matches that process. Following the initial interviews and diary study briefing with each participating entrepreneur, the data collection protocols commenced for a total length of three months for each participant. The three-month study length was intended to gather a process-rich longitudinal view of each entrepreneurs' decision-making and coping strategies in relation to their business performance.

2. Number of participants and sample size

The total number of participants depended on sampling criteria which were laid out earlier within the overall **Sampling and Participation** section. The study recruited $N=10$ participants in total, but $n=3$ dropped out before the initial interview and diary data collection could begin, and $n=1$ was removed from the sample after data collection because of low activity and involvement in their business. This yielded a final sample size of $n=6$ remaining participants took part in both the initial and final interviews, participated all the way to the end in the diary study element.

3. Number of diary entries/observations per participant

Participants submitted diary entries twice per week (frequency) through an online form over the three-month period (length of study). The total number of diary entries/observations was set to a maximum of $f=24$ per study participant (2 Observations per week x 12 weeks) excluding invitations on weekends. The final sample size of $n=6$ participants provided $f=113$ complete diary entries and observations, averaging $f=19$ entries per participant (min=14; max=21).

Development of the diary survey

The diary was administered in the form of a repeated survey designed to gain insights into the way coping and decision-making processes develop over time for participating entrepreneurs. The data-collection methods used in the present research prioritised participant observations around key events (e.g., challenging situations reported by the entrepreneur) with open-ended questions. The following were considered during development:

1. Diary format and standardisation

The diary study used a combination of open-ended (n=5) and closed-ended (n=9) survey questions prompting participants to reflect on their recent experiences. These questions were developed with the priorities of saving response time, while providing sufficient information to allow contextualised comparisons between each observation. Participants who submitted entries through an online survey form were asked within the diary study to identify whether they had experienced a Challenge since their last diary entry/observation. If participants responded to this initial question with “Yes”, they were asked to respond to follow-up Open-ended questions to describe the challenge addressed, what they decided and outcomes they anticipated as a result (Table 11).

Table 11. Diary (open-ended) questions on challenges & decisions

Question	Concept	Field type	Response options	Logic
Have you faced important business challenges in the last few days?	Business Challenges: Last Few Days	Closed-Item	Yes No Unsure	N/A
What challenges have you addressed?	Challenges Addressed	Open-ended		If Yes, Faced Challenge
How have you decided what to do?	Business Decisions: Process Description	Open-ended		
What, if anything, do you anticipate will happen following your decision(s)?	Anticipated Outcomes	Open-ended		

These responses were used to gather data about participating entrepreneurs’ unfolding experiences with situation-specific incidents/events and business challenges. Indeed, process-oriented approaches include accounting for challenges (controversy or dilemma), decision making around actions and alternative courses, then practices (continuity in how things are generally done) that develop as a consequence of addressing challenges (Sminia, 2011). The survey form for diary entries also allowed further explanations regardless of whether they faced a specific challenge. Participants provided accounts based on their time available and desired depth.

Additionally, all participants received the same standard questions addressing subjective appraisals of business performance: These questions were developed as part of the conceptual framework including *external perceptions*, *perceived capacity*, and *effectuation*. These subjective measures ($N=9$) were provided to study participants in a baseline measure (initial questionnaire) and then repeated on each diary entry/observation as closed-item Likert-Scale statements (7-point: Agree – Disagree). Of these measures, $n=6$ items were reverse coded (Oppenheim, 1992, p. 126) based on whether agreement with negatively phrased questions represented ‘unfavourable’ attitudes from the study participant (see Table 12).

Table 12. Repeated measures (closed-item) Likert-scale (agreement) assessments

Field Type	Concept	Subjective Measure	Short name	Assessment	Coding
Repeated measures (7-point Likert-type scale)	External Perception	‘The current context for my business is particularly challenging.’	Challenging Context	Perceived external norm	Reverse
		‘My business faces a high degree of uncertainty.’	Uncertainty	Predictability	Reverse
		‘I have accounted for the major issues facing my business.’	Factors Awareness	External factors	--
	Capacity Perception	‘My business decision making tends to be rushed.’	Rushed decisions	Pressure to respond	Reverse
		‘My business feels out of control.’	Business Control	Perceived Control	Reverse
		‘I feel equipped to handle the challenges facing my business.’	Feeling Equipped	Behavioural belief	--
	Effectuation Perception	‘My business makes me feel stressed.’	Business Stress	Stress Experience	Reverse
		‘I worry about my business failing.’	Failure Worry	Anticipated outcomes	Reverse
		‘I am pleased with how my business is doing.’	Business Progress	Sense of satisfaction	--

During the diary study, within-diary appraisals were gathered for each of these subjective measures by longitudinal stage. These subjective measures were taken first as a baseline within the initial questionnaire, prior to the initial interview and to commencing the diary research. These subjective appraisals of business performance were then repeated longitudinally over the course of the diary study (up to 24 stages). During data analysis, these questions formed each entrepreneur's narrative accounts and provided visual patterns of how decision-making and coping dynamics connected to business outcomes during their observational periods.

2. Length and number of questions

The diary questionnaire was kept as short as possible to minimise response burdens (both cognitive effort and time) with the aim of participants continuing to respond over the course of the study (Fisher & To, 2013). Following guidance on experience sampling and diary methods, the design was intended to ensure diary reports did not require more than 10 minutes per entry (Hektner et al., 2007). A number of approaches were taken in this study design to minimise negative effects from this issue, such as using less frequent reporting for a longer study length (Schmitz et al., 2012). The average completion time per entry was well below the recommended maximum of 10 minutes (\bar{x} =02:23 minutes).

3. Pilot testing

Following completion of the preliminary diary design and format, a pilot test was conducted with a small sample of three entrepreneurs for a two-week period. The profile of these entrepreneurs was similar to the intended participants of the main study. During this piloting period, feedback was requested of participants about the questions (clarity, completion time), any missing or non-compliant reporting, and whether the diary period was atypical in any way compared to their usual daily life. This testing period also included feedback on experience with the technology for signaling and data capture.

4. Diary briefing and instructions

At the end of the initial interview, participants received a briefing about the diary study. An overview of issues was discussed during this in-person introduction, including

reassurance of confidentiality and a clear set of instructions to outline how to complete the diaries and when to respond. These instructions included training on procedural issues such as compliance, what the questions mean, what to do if an interval is missed, and how to get in contact when assistance was needed. These instructions included summarising the goals of the diary study, what type of behaviour/experience to include in their accounts. Diary-based data collection commenced following the initial interview.

5. Data collection

Diary data collection in this study was conducted using a web-based survey. Following the established time interval, participants received email notifications twice weekly to signal when a diary entry should be provided. Each diary entry included up to two reminder notifications that were triggered by a non-response. A study duration of 3-month (length of study) was chosen to limit the observational period for participating entrepreneurs, thus making 24 diary entries/observations the maximum allowed per study participant (2 observations per week x 12 weeks). Participants were debriefed after the study concluded with the final face-to-face interview. Following diary submissions, qualitative analysis was conducted on an on-going basis as data were collected during the study so that emerging findings would inform the design of the final interview questions.

3.6 Data Analysis Methods

This section outlines the data analysis methods and tools used in this research for analysis. This dissertation followed a systematic approach for analysing qualitative data (Bryman & Burgess, 1994; Dey, 1993), with the aim of exploring fundamental links between individual entrepreneurs and coping strategies used, along with various temporal and contextual factors pertaining to entrepreneurial performance (Frese & Gielnik, 2014; Mischel, 1968; Hitt et al., 2007; Hmieleski & Baron, 2009; Baron, 2013). In this regard, a general inductive approach was used with a preliminary round of coding to identify the entrepreneurial decision-making and coping strategies used by participant entrepreneurs to address situation-specific challenges within interview and diary accounts. The purpose of the inductive approach was to contextualise emergent research findings from the

frequent, dominant, or significant themes inherent in raw qualitative data, without the restraints imposed by more structured methodologies (Glaser & Strauss, 1967, Strauss & Corbin, 1998, Strauss, 1987).

3.6.1 Data Analysis

This section provides an overview of the data analysis approach carried out for this study. Qualitative interview data contained participants' narratives about their personal experiences, life stories, and related introspection. The developmental nature of these narratives could be seen particularly clearly in the diary data. Drawing on data from both the interviews and diary entries for the same individuals, entrepreneurial narratives were analysed as case studies developed at the level of individual entrepreneurs. The individual case studies qualitatively modelled temporal dynamics and processes for each participant entrepreneurs' developing perspectives and experiences. The process-focused approach in this dissertation for understanding entrepreneurial coping and decision-making processes holds important implications for the data analysis. Within-diary appraisals for each subjective measure by longitudinal stage provided a continuous view of the entrepreneur's unfolding perspective, while interviews contextualised these within-individual patterns. In addition, a cross-case thematic analysis focusing on emergent patterns visible *across* individuals was developed and integrated alongside this within-individual case analysis. Taken together, these results show how entrepreneurs' coping strategies and decision-making processes relate to appraisals of business performance.

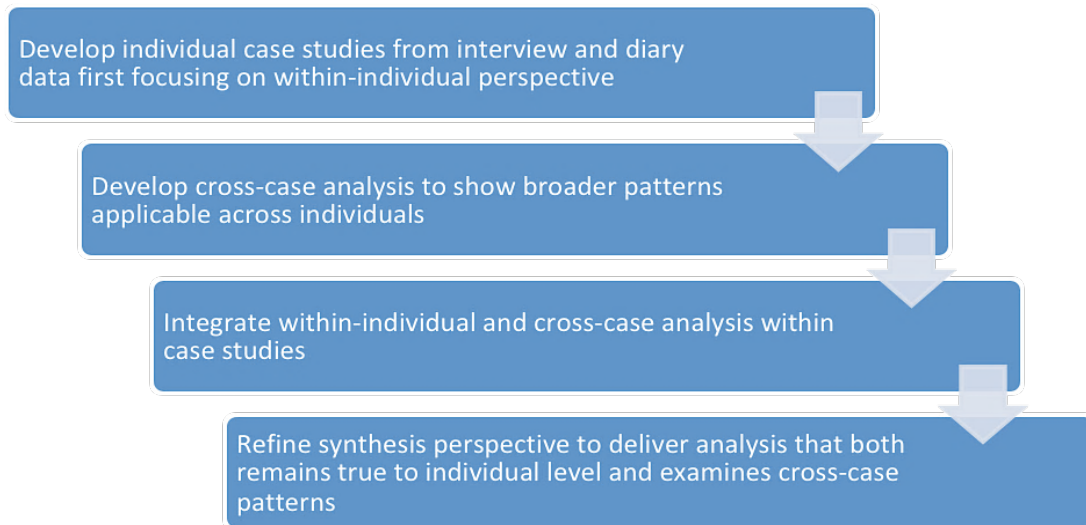


Figure 11. Illustrating analytic steps employed

The data analysis was underpinned by a general inductive orientation to analysing and synthesising interview, questionnaire and diary data collected for each entrepreneur. This inductive orientation was further supplemented by a process-oriented analysis using diary data. The combined contributions from these two ways of approaching the data were integrated into case studies to show each participating entrepreneur’s trajectory over the course of this research. Finally, a method of constant comparison between cases further supported development of a cross-case analysis aiming for synthesis.

3.6.2 Inductive approach to data analysis

Overall, the dissertation adopts an interpretivist epistemology. This means the individual entrepreneurs’ subjective perspectives on their experiences are at the centre of this research, privileging the participant’s interpretations and meaning-making processes (Nagel, 1974). The approach to developing the qualitative analysis for this dissertation is influenced by grounded theory (Glaser & Strauss, 1967), although it does not claim to be a grounded theory study per se. Glaser & Strauss (1967) elaborated ways in which linkages between data and theory can be maintained using an approach that emphasises the inductive generation of theory from data. Inductive reasoning begins with specific observations and a process of detecting patterns that may be present, then builds up to explanations (Glaser & Strauss, 1967). To identify and support either explicit or implicit

causal claims with credible evidence (Seale, 1999), it is important to maintain a connection to the original data (Miles & Huberman, 1994). This effectively grounds theory in the data (Glaser & Strauss, 1967; Strauss & Corbin, 1998; Strauss, 1987) collected from participating entrepreneurs. This study has assumed that an entrepreneur's subjective reality may be accessed through written or verbal expressions offered during the data collection process.

In the analysis, statements made by entrepreneurs in reported data were separated from analytic statements that seek to explain this data (Seale, 1999). Indeed, Rose (1982) distinguished between concepts used by respondents in navigating their way through their social worlds, and theoretical concepts constructed or applied by the researcher (e.g. Silverman, 1998). As such, the process of developing concepts and indicators is central to qualitative data analysis.

Miles and Huberman (1994) recommended that researchers develop a preliminary listing of data codes early in the research process to provide focus. In this study, a general inductive orientation underpinned a preliminary round of coding applied to the interview and diary data to identify the entrepreneurial decision-making and coping strategies used by participating entrepreneurs to address situation-specific challenges within. Coding the transcribed interviews focused on repeated interrogation of data using *open coding* (Strauss & Corbin, 1990). During open coding the data were broken down into discrete parts, closely examined, compared for similarities and differences and questions are asked about the phenomena as reflected in the data. Subsequently, *axial* coding was intensive work within a single category, examining connections with other categories and exploring surrounding 'conditions, contexts, actions, interactional strategies and consequences' (p. 96). Then *selective coding* involved taking a single 'core category', where other categories and properties were regarded as subsidiary to the core (Seale, 1999). However, Seale (1999) argued that axial and selective 'coding' are in fact further elaborations of open codes and a method of constant comparison. A summary of key themes that focused the coding process for this study is presented in Table 13.

Table 13. Summary of themes for selective coding

Theme	Coding	Summary
Theme 1	Decision making	Application of coding for cognitive biases from entrepreneurship literature.
Theme 2	Coping strategies	Application of coding for coping response strategies (appraisal-, emotion-, and problem-focused coping).
Theme 3	Appraisals	Application of coding for identification of appraisals (i.e., meaning-making). These were subjective indicators of business performance (Dej, 2010; Davidsson, 2007), such as estimates, expectations or anticipated outcomes.
Theme 4	Challenge resolution	Application of coding for resolution based on specific challenges faced at different stages in the business.

Indeed, in using constant comparison method, the focus of selective coding was aimed at uncovering key themes to shed light on general and specific challenges faced by entrepreneurs.

Constant Comparison

Constant comparative analysis is a core idea within grounded theory (Seale, 1999). Constant comparative analysis is a systematic way of developing and refining theoretical categories and their properties. Indeed, Glaser (1992) contended that through ‘constant comparison’, the analyst gets to the desired conceptual power where categories emerge upon comparison and properties of a conceptual category emerge upon more comparison (p. 43). The analytic technique of constant comparison includes three main steps:

1. Incidents in data are coded into categories and different incidents are grouped together by the coding process so they can be compared. This begins to generate ideas about the properties of a particular category.
2. Integrating categories and their properties, noting how the properties interact. Again, this is established through constantly comparing different instances.

3. Reaching theoretical saturation in which no new properties of categories appear, and no new interactions occur.

This contrasts with Strauss' (1987) method of labelling and then grouping. Glaser (1992) argued this could be 'totally unnecessary, laborious and a waste of time'. In this research, constant comparative analytic steps aligned with the general inductive orientation that underpinned the coding and category development throughout the data analysis. In particular, constant comparison was used to develop integrated results between interview and diary data.

3.6.3 Supplementing Inductive Orientation with Process Analysis

In order to develop an analysis that synthesises both a process-oriented perspective and inductive analytic orientation, an interpretivist perspective (Gioia & Pitre, 1990) was applied to the diary data to highlight the developmental nature of meanings and interpretations entrepreneurs bring to their ventures and everyday business activities. This type of analysis was important to account for the unfolding trajectories of entrepreneurs. Synthesis incorporating these different analytic techniques was accomplished by integrating process analysis into the development of case studies for individual entrepreneurs. This took the approach of layering a process analysis on top of the initial grounded theory analysis.

Fundamentally, process approaches focus on connections between variables, as containing embedded information about events that may be viewed in different ways or hold different meanings over time (Van de Ven & Sminia, 2012). Indeed, Hoffman (2015) contends that variables measured over time are really two variables instead of one. This highlighted the need to consider process questions when developing the analysis to account for stability and change (Sminia, 2011). Fundamentally, process questions (Van de Ven & Sminia, 2012, p. 3-4) addressed in this dissertation can be summarised in four analytic categories (Table 14):

Table 14. Process questions and objectives

	Concern	Question	Conceptual explanation
1	Past	What has happened? How did we get here?	Historical
2	Present	What is going on?	Emergence
3	Future	Where are we going?	Constructing
4	Action	What should we do, when?	Development & Control

For questions about the past, the process perspective focuses on historical reconstruction of events and experiences, while seeking a conceptual explanation for event sequences. Questions about the present are concerned with events that emerge as a concurrence of circumstances, while attempting to understand conceptually whether an event is situation-specific or representative of generalisable patterns. For questions about the future, the process perspective concerns unfolding events and constructing or anticipating a future from the past or present. Finally, action questions in the process perspective are interested in development and control, whereby intervening in the present might achieve desirable future outcomes.

Process research aims for contextualised explanations of events as they occur in emerging accounts. Pettigrew (1985) highlights that the longer an emergent process is followed, the more it becomes possible to disentangle the origins of phenomenon and identify continuities. This process-oriented analysis included coding to account for challenges (controversy or dilemma), decision making around actions and alternative courses, then practices (continuity in how things are generally done) that develop as a consequence of addressing challenges (Sminia, 2011). Such continuity is only observable when data are collected at more than one time point, as in the diary data for the present study. This analysis served to minimise the range of alternative explanations for within-person outcomes during the diary study phase of the research.

Connecting observations and challenges with Chain analysis

In order to implement this process prospective in the present study, the technique of Chaining (e.g., Rizvi & Ritschel, 2014) was applied to this analysis to connect entrepreneurs’ subjective viewpoints across the initial interview, throughout the diary study and final interview. Rationale supporting chaining as an analysis technique follows that because an individual’s perspectives and recollection of events are susceptible to change over time (Bogdan & Taylor, 1975; Xanthopoulou et al., 2009), longitudinal research with multiple stages of data collection can help establish links between challenges that happen in earlier time frames and subsequent outcomes (Schmitz et al., 2012; Rizvi & Ritschel, 2014), as presented in Figure 12:

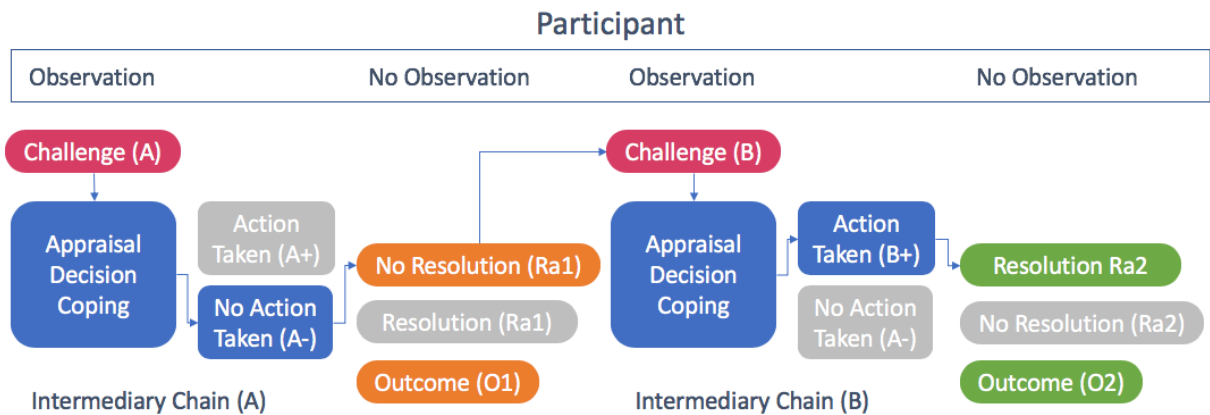


Figure 12. Graphical representation of chain analysis

Applying a process approach to the present study included consideration of how participating entrepreneurs resolved situation-specific challenges that connect recent events to appraisals, decisions, and entrepreneurial outcomes throughout the diary study phase of this research, rather than more broadly. Subsequently, connections between these entrepreneurial practices and specific business challenges were then clarified in order to identify patterns and reveal specific practices each participating entrepreneur employed to manage business challenges, mitigate personal stressors and cope with business-related uncertainties, and resolve challenges highlighted during their observational periods. Qualitative analysis of longitudinal data collection was used to uncover response patterns of within-diary appraisals.

Pattern analysis and classification of within-person variation

During the diary study, entrepreneurs' perspectives on each repeated measures variable took on a number of different patterns, which have been used in the present analysis to understand the entrepreneurial process. The classification of these patterns was based on quantitative criteria applied to participants' answers to Likert scale items about their subjective assessments, including business context, decision-making and coping strategies (see Appendix G. Coping strategies and responses). To further develop this process-oriented analysis, the traditionally 'quantitative' analytic step of frequency analysis was employed with the diary data. This frequency analysis was used to establish stability classifications based on identifiable response characteristics that became evident over the course of the diary data collection. These quantitatively-defined classifications were only a starting point for this aspect of the analysis. Entrepreneurs also provided qualitative explanations that helped develop the case studies that comprise the study's Results chapters.

An important distinction when conducting longitudinal research relates to the type of within-person variation to be examined. In order to provide insights into the functional form of *change*, as well as causes and consequences (Bolger & Laurenceau, 2013), data analysis focused on identifying response patterns, divergences, and comparisons through a process-oriented lens. Collecting repeated measurement (up to 24 data collection points) of the same subjective appraisals made it possible to visualise patterns of *within-person variation*. The qualitative analysis uncovered patterns of responses within diary appraisals that reflected different levels of stability. Through this analysis, a continuum emerged as a finding of many possible intermediate points, making these distinctions important for describing within-person variations revealed in diary data (see Table 15).

Table 15. Dynamic response pattern classification scheme

		Divergence				
		None	Acute	Sporadic	Intermittent	Longstanding
Variation	0	Stable (1)	Stable (4)	2	3	4
None	0	Stable (1)	Stable (4)			
Minor	1	Stable (2)	Stable (5)	Unstable (7)	Unstable (9)	Unstable (11)
High	2	Stable (3)	Stable (6)	Unstable (8)	Unstable (10)	Unstable (12)

For each measure presented, values correspond with specific overall categories summarising the dynamic response patterns, as either Stable (1-6) or Unstable (7-12) during the data collection period. These categories are based on the level of continuity and variation in entrepreneurs' dynamic response patterns. Furthermore, classification of dynamic response patterns in this way retains a full qualitative story behind the numbers.

This classification scheme emerged from an analysis of within-individual variation based on identifiable response characteristics, including overall *valence* (positive and negative appraisals or affect), degree of *variation* (type of observed fluctuation or change) and frequency of *divergences* (instances when valence shifted, such as from a positive to negative appraisal). For the purpose of this classification system, evident patterns of divergences were labelled as *none*, *acute* (short-term), *sporadic* (three or more divergences), *intermittent* (divergences at semi-regular intervals) or *longstanding* (divergences that persist over time). After developing this classification scheme, subjective measures were categorised on a continuum that ranges from *stable* (1-6) response patterns with minimal variation and infrequent divergences to *unstable* (7-12) patterns that showed high variation and more frequent divergences. Numerical values represent ordinal arrangements of dynamic response patterns and thereby present assumptions that are artificially imposed by the researcher.

More specifically, dynamic response patterns with high continuity, few variations or infrequent divergences were evident in appraisals provided by entrepreneurs during the data collection period; thus, perspectives that remained consistent throughout the diary study were classified as Stable. Alternatively, dynamic response patterns with low continuity, many variation or frequent divergences were also evident in appraisals provided by entrepreneurs; thus, perspectives that lacked consistency throughout the diary study were classified as Unstable. These stability classifications were further represented graphically for each dynamic measurement and presented in case studies along with qualitative interviews and analytical statements to explain dynamic response patterns. In this way, pattern analysis of diary appraisals uncovered in both visualisation and classification while retaining a full qualitative story behind the numbers reflect different levels of change and stability.

Stable response patterns

Measures given this classification had a consistent valence, minimal variation and infrequent divergences during the diary study regardless of reported challenges. The dynamic response patterns for subjective measures were classified as Stable during the diary study due to high continuity in the overall valence and minimal evidence of correspondence between fluctuations and challenges that entrepreneurs faced. Although qualitative explanations provided by entrepreneurs in diary accounts helped to contextualise fluctuations at various stages, explanations for stability on these measures were available primarily through interviews. Graphical representations of these *Stable* response patterns are presented in Figure 13:

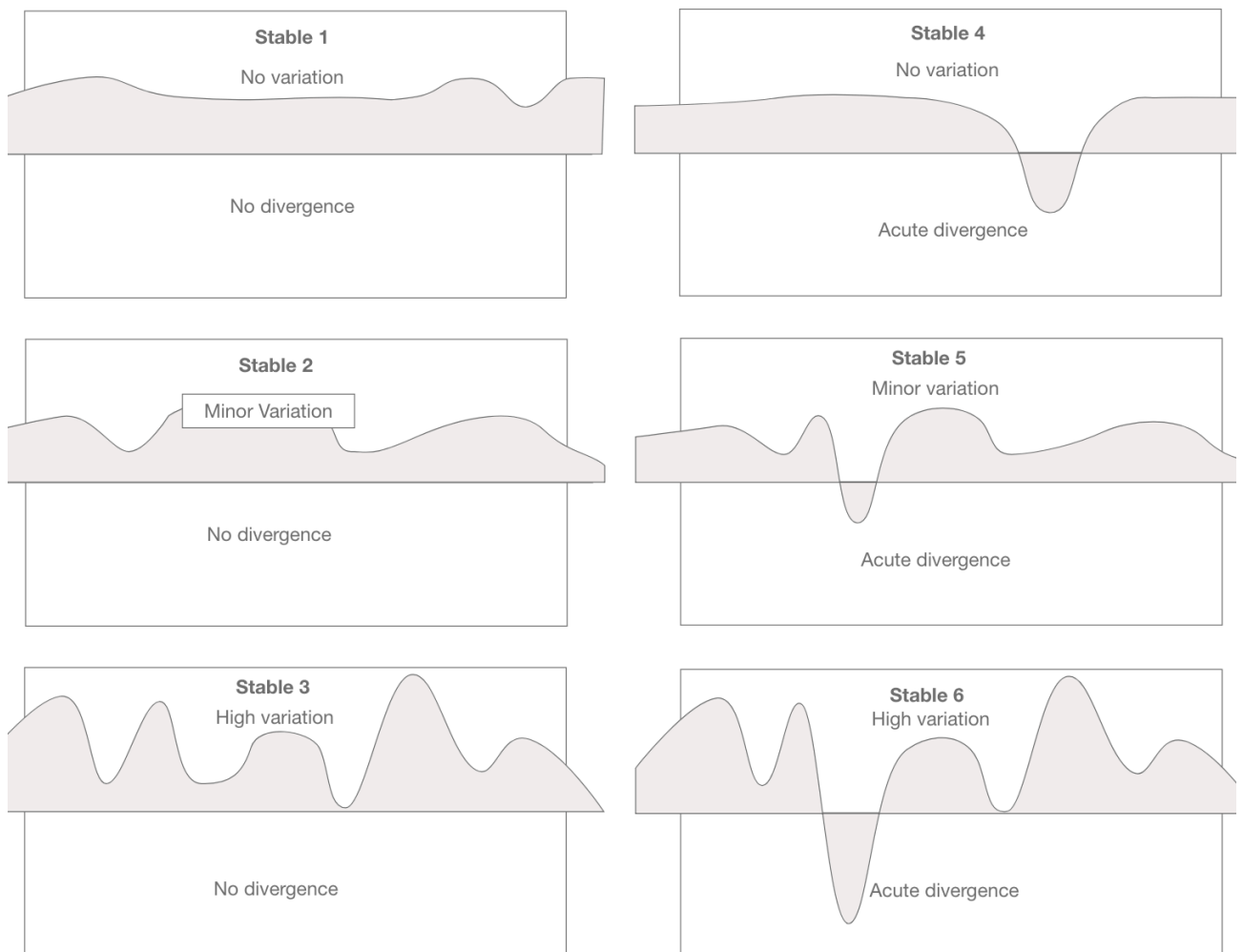


Figure 13. Graphical representations of Stable response patterns

Unstable response patterns

Measures given this classification had an inconsistent valence, high variation and frequent (sporadic or intermittent) or longstanding divergences during the diary study. Compared to Stable response patterns, this lower continuity had more correspondence between changes in responses and challenges that entrepreneurs faced during the diary study. While qualitative analysis of explanations provided in diary accounts helped to contextualise evident fluctuations, connecting to interviews helped clarify entrepreneurial practices underlying the evident instability on these measures. Graphical representations of these *Unstable* response patterns are presented in Figure 14:

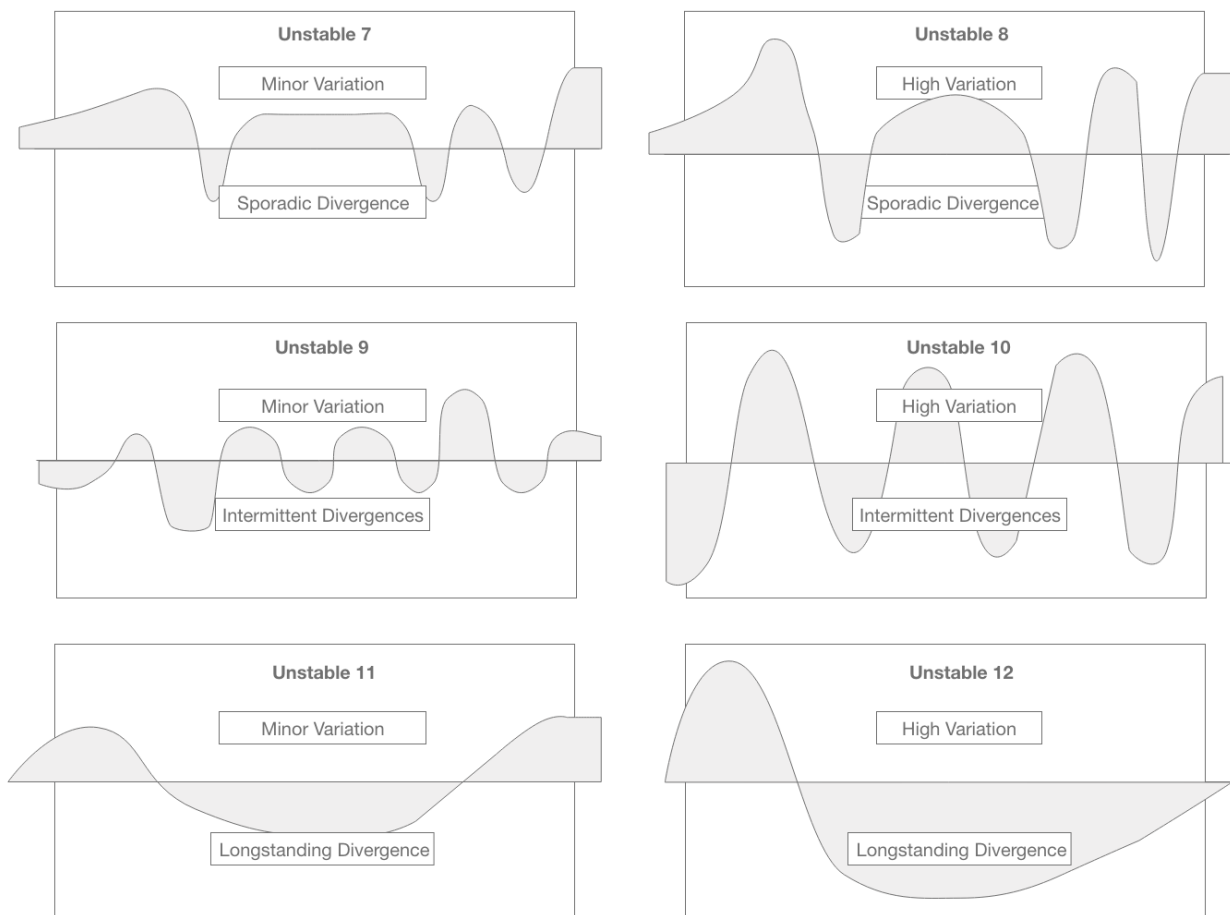


Figure 14. Graphical representations of Unstable response patterns

3.6.4 Case Study Development

Case study research methods were used to support empirical inquiry in this study towards phenomenon within a real-life context (Yin, 2003, p. 13), as an in-depth exploration of programs, events, activities, processes, or individuals (Creswell, 2003, p. 15) bounded by time and activity. Using different sources allows for data triangulation, therefore improving the robustness of the study (Yin, 2009). Along with qualitative explanations that entrepreneurs provided in interviews and diaries, measurement classifications supported development of multiple longitudinal case studies (Davidsson, 2005; Yin, 2003) comprising Section 2 Individual Case Analysis.

Each case was thoroughly analysed, in order to identify relationships between constructs, and cases were compared with each other, in the sense of progressively developing a richer theoretical framework and mapping events over time. Knowledge claims within the case studies are evidenced with illustrative example quotations and diary survey data tables so that readers can see the basis for such claims. Case histories, tables synthesising relevant firm data, and detailed chronological sequence of key events were identified for each entrepreneur.

Each within-case description develops narrative accounts of the running series of snapshots gathered about individual entrepreneur's journeys (McMullen & Dimov, 2013) before, during and after the diary study. The diary study and interviews provide the raw materials for the case study, including personal accounts, thoughts and perceptions from each entrepreneur's journey during the study timeframe. Each case takes a process orientation to show decision-making and coping strategies (see Appendix G. Coping strategies and responses) in relation to specific challenges and subjective appraisals of business performance over time. The analysis focuses on how entrepreneurs navigate the ups and downs of daily business life, assessing their role within the overall functioning of their businesses.

These case studies used a cross-level design in which individual-level appraisals were related to explanations of firm-level performance (Davidsson, 2007; Dej, 2010). Therefore, each case analysis is idiographic (Luthans & Davis, 1982), following

entrepreneurs starting at one point in time and looking in-depth at the diachronic unfolding of their subjective perspectives. Moreover, the later constant comparison layer of the analysis provided a cross-case perspective. The combination of within-case analysis (Chapters 4-9) and cross-case synthesis (Chapter 10) was designed to enable methodological triangulation and to support establishing a synthesis that could contribute to entrepreneurial theory.

3.7 Methodological limitations, delimitations and trustworthiness

This section reviews key methodological limitations of the research approach and mitigation strategies that have been applied. This section outlines steps taken to enhance reliability of the present study and mitigate potential weaknesses. Despite best efforts, limitations remain. For example, while diary methods were arguably the best available option from within the current social science toolkit for gaining an ongoing processual account of phenomena as they unfold, as an intensive repeat measures protocol they do have practical and methodological limitations that required strategies to be put in place.

3.7.1 Recruitment and dropout rates

This study involved a total sample of $n=6$ participant entrepreneurs in intensive longitudinal data collection with multiple data collection points (up to $f=24$) within the same individuals by structuring the research design and approach around their availability within a three-month period of time. The interconnected elements of the diary study design (see Figure 10) were balanced based on prioritising the objective to diminish dropout to a reasonable level over the study. Ultimately, this objective was achieved with a participant retention rate of 100%. However, the resulting total sample size was less than desired and demographic characteristics of all participants were male (see 3.7.2 Gender of participants).

3.7.2 Gender of participants

The resulting sample were all male participants. This may indicate required additional strategies to supplement the recruitment communication approach and compensate for recruitment gap with female participants that was not well-articulated or evident in the entrepreneurship literature. Despite efforts to enhance the participation experience itself, the recruitment efforts might have required more extensive efforts to ensure invitations to entrepreneurial networks were more directly requesting female participants. For example, perception of the cognitive resources needed during the study may have not been optimal and could have been a barrier to recruitment. Furthermore, more extensive efforts to ensure invitations to university departments should have directly requested female participants.

Another possibility is that more deliberate invitations could have significantly enhanced sampling with women entrepreneurs, perhaps by raising awareness of particular issues more relevant to women in general. For example, there is a body of research on problems and pressures unique to women, including sex discrimination and prejudice, lack of role models and mentors, feelings of isolation, and the burden of being the token women (Cooper & Davidson, 1987). Furthermore, life issues such as caring for children or other family members, that may result in inequitable sharing of available resources or time they can devote to their businesses. Thus, better articulating these considerations will be important for future recruitment efforts.

3.7.3 Intensity of data collection and compliance

Regarding participants who completed the study, considerations offered by Nezlek (2012) were followed early in the study to enhance how participants would experience the intensity of a diary study. It is evident that reducing intensity had the desired effect of increasing overall compliance with the study (Nezlek, 2012); thus, the need to balance *information gathering* and *compliance* seems to be evident. For example, a number of approaches were taken in this study design to minimise negative effects from this issue, such as using less frequent reporting for a longer study length (Schmitz, Klug, & Hertel,

2012). The total required completion time per entry was well below the recommended maximum of 10 minutes (\bar{x} =02:23 minutes). The goal for this was two-fold: first, to lessen the burden of this study on entrepreneurs, considering both time and cognitive resources; second, to increase feasibility and participant's motivation to stay committed for the entire length of the study. Nevertheless, the study encountered two common types of non-compliance by participants: failure to respond when signalled and responding at a different time-points than intended. This meant that the total number of observations collected for each individual was less than the maximum possible.

3.7.4 Reliance on self-report data in diary method

The use of questionnaires with diary methods relies on entrepreneurs providing self-report data about their experiences. However, self-report data can present accuracy problems due to various forms of well-known survey response biases (Podsakoff & Organ, 1986). Crucially, these validity concerns pertaining to self-reports most acutely affect retrospective accounts (Nezlek, 2012). Researchers have, for example, consistently demonstrated that retrospective accounts can be limited by the constructive nature of human memory. Due to memory decay, people have difficulty accurately recalling and providing accurate accounts of past events (e.g., Mitchell et al., 1997; Schwarz, Kahneman, & Xu, 2009; Fredrickson, 2000). Such problems with retrospective accounts are matched by limitations in prospective only accounts. For example, previous studies on coping strategies have demonstrated that the strategies people predict they will use bears little resemblance to the coping strategies they actually use when reporting on current experiences (e.g., Schwartz et al., 1999).

The central concern is whether participants' accounts of events could be 'trusted' and to what extent participant entrepreneurs were aware of, or capable of reporting on, emotional states, decisions or coping strategies that various events may have invoked for them hours or days afterwards. In this regard, Maus and Robinson (2012) cogently argue that validity of self-reports is too often seen as an all-or-none phenomenon and that a range of commonly accepted situations exist when self-report data would be expected to be valid and reliable. From a methodological standpoint, Robinson and Clore (2002) argue that the

degree to which self-reports retain quality or validity will vary by the type of self-report. For example, self-reports of current emotional experiences are likely to be higher quality and more valid than self-reports of emotions made at a distance in time from the relevant experience (Robinson & Clore, 2002). That is, as the time lag between an event and report is diminished closer to actual experiences, the likelihood of gathering more accurate accounts (i.e., in the actual response or experienced emotions) from an entrepreneur can be expected to improve.

These methodological concerns have been central to the choice of diary methods. Balogun et al. (2003) have argued that diary methods are well-suited for use within entrepreneurship research because diary accounts can allow researchers access to an entrepreneur's reactions and affective responses as they change over time, while reducing time lapses between entrepreneurial events and their associated responses, reactions, and cognitions, and lessening post-rationalisation within these responses. Therefore, in contrast to cross-sectional methods, diary methods may well permit more reliable information about contemporaneous experiences and better ensure quality in participating entrepreneurs' self-reports.

The specific approach to diary methods in this study involved a twice-weekly reporting interval. However, twice-weekly reporting did mean some events were recalled up to two or three days after they occurred, even in the most optimal scenario, which could have affected the accuracy of an entrepreneur's self-reported accounts. That is, there may have been gaps between what participants would have reported contemporaneously versus what they later reported in the diary entry. Nevertheless, this approach provided a continuous picture of intermediary changes for entrepreneurs, mitigating limitations of retrospective and prospective accounts.

3.7.5 Concern for reactivity effects

A key methodological concern in this study is the *reactivity effect*, which is commonly understood as 'the potential disadvantage of asking people to answer the same questions on a repeated basis' (Barta, Tennen, & Litt, 2011; Fisher & To, 2012; Nezlek,

2012). The concern around reactivity for this study is that regular and frequent reporting by participant entrepreneurs might lead either to increased awareness or to less reporting of phenomena that remain persistent. For example, reporting on work–family conflict might lead to reporting of more conflict because of increased awareness, or to reporting of less conflict because respondents have been motivated to modify their lifestyle (Barta et al., 2011).

The key here is that maintaining a diary should not interfere with a person's life, and to the extent that it does, maintaining a diary may limit the very thing it is designed to study (Nezlek, 2012). This comes from past cases in the psychological literature, where frequent self-monitoring has been used as a therapeutic intervention in order to modify respondents' perceptions or behaviour (Barta et al., 2011; Fisher & To, 2012). While these outcomes are not inherently negative, intervention was not an overarching objective of this study, nor central to this study's research question. Thus, it is important to note that diary literature shows an understanding of strengths and weaknesses associated with diary research methods that has grown over the last forty years. Indeed, these strengths and weakness were considered in design of the present study.

Another key point from this literature relevant to this study, is that while sometimes participants report an increased awareness of their activities as a result of diary keeping, literature shows that research participants do not necessarily report that such an awareness leads to any change in behaviour as a result (Nezlek, 2012). Rather, where meaningful changes have been reported in behaviours of the diary keeper, diary researchers have not comprehensively demonstrated that diary keeping was the source of these changes. As well, when diary studies have led to meaningful changes in behaviour, the objective of the research has typically involved a goal, such as making a specific change in the participant's behaviour, as in avoiding counterproductive behaviour (e.g., excessive drinking) or increasing productive behaviour (e.g., exercise) that are made explicit to the participant. In these cases, observed changes were presumed by researchers to be caused by an increased salience of the particular phenomenon. However, the prevalence of behaviour change in goal-oriented studies contrasts with diary studies conducted by social psychologists, whereby *no* desirable or undesirable behaviours are made explicit to

participants (Nezlek, 2012). This is supported, for example, in entrepreneurship literature, in a study conducted by Balogun et al. (2003) asking entrepreneurs to give an account of events and how they related to these events, while leaving it to the entrepreneur to bring up issues of interest or concern. Results from this study supported the common assumptions of non-reactivity.

Indeed, the extent of available evidence appears to suggest that when people maintain a diary without an explicit goal or end state in mind, maintaining a diary does not have a meaningful influence on their thoughts, feelings, or behaviours. Diary researchers have therefore typically assumed that diaries are non-reactive. Thus, because it is a reasonable concern that diaries could create change in participant entrepreneurs' behaviour, participants in this present study were told in the initial briefing that the research is interested in the challenges they address in daily life as entrepreneurs, per se (e.g., Nezlek, 2012). To the extent needed without creating issues around reactivity, participants were reminded in the initial interviews that they *should not* change their behaviours or routines because of maintaining the diary.

3.7.6 Researchers' closeness to data

The purpose of the inductive approach is to allow research findings to emerge from the frequent, dominant, or significant themes inherent in raw data, without the restraints imposed by structured methodologies (Bryman & Burgess, 1994; Dey, 1993). In order that findings might emerge from frequent or significant themes (Glaser & Strauss, 1967), the inherent subjectivity of research subjects and researcher are allowed by qualitative research approaches and provide necessary permissiveness to research instruments and analytical frameworks. This was intended to limit premature closing down of categories that could occur from researcher bias or presumptions prior to data collection and analysis. Indeed, use of an inductive approach contrasts to the deductive model of analysis, which starts with theoretical assumptions, then posits hypotheses that are tested against the data. In contrast, this approach began with the data and a process of developing micro-level descriptions, working up to explanations for business performance across multiple cases by the end of the analysis process.

3.8 Chapter Summary

This chapter describes the research methodology and justifies the relevant philosophical traditions undertaken in the present study to explore developmental processes and links between phenomena that contribute to a range of entrepreneurial outcomes, including resilience. Additionally, this chapter provides supporting rationale for the research design, sample and data collection strategies for participant recruitment, interviews and diary methods. This chapter offers methods and tools used for case analysis and steps taken in the research approach to improve reliability and mitigate potential weakness in the overall research design.

Given the nature of the research questions and accounting for state-of-art in research within the field, this dissertation developed an innovative strategy for inductive, longitudinal multiple-case study. This study adduced longitudinal evidence from 108 diary-based accounts of participants' day-to-day experience and 12 in-depth qualitative interviews providing direct insight into the entrepreneurial process, drawn from six participating entrepreneurs over a three-month timeframe.

Results from individual-level longitudinal cases are presented in the next section, including Chapters 4 – 9. These results draw on the full range of empirical data available, including the pre-diary (initial) questionnaire and qualitative interview, the diary study (up to 22 stages) and the post-diary (final) qualitative interview. Longitudinal data have been analysed inductively, as outlined under 3.6 Data Analysis Methods. Findings for each individual case have been developed idiographically with a process-orientation, showing dynamic response patterns connected to entrepreneurs' unfolding stories, within the bounds of each case.

Cross-case comparisons are presented in Chapter 10, including synthesis designed to explain apparent variation in dynamic response patterns between multiple individual cases. The purpose of this multi-case method was to build an integrated, holistic and process-orientation of similarities and differences between the cases. This chapter generates findings based on entrepreneurs' journeys and emerging personal and business phenomena.

SECTION 4: INDIVIDUAL CASE ANALYSIS

CHAPTER 4: CASE STUDY 1 (GERALD)

4.1 Introduction

Individual-level longitudinal results are presented in this chapter for ‘Gerald’. These results draw on the full range of empirical data available, including the pre-diary (initial) questionnaire and qualitative interview, the diary study (18 stages) and the post-diary (final) qualitative interview. Data have been analysed inductively, as outlined under 3.6 Data Analysis Methods.

4.2 Personal Background

Gerald is a Scottish CEO and founder of a start-up company developing assistive technologies for people with physical impairments. He is a British white male in his late forties living in a large city in Scotland (United Kingdom). He has completed secondary (high school) education but has no substantive background or skills in running a business prior to founding his company. His professional background included 10 years of military service, followed by employment in a non-profit organisation. He has remained active in his company since it was founded 5 years prior to participation in this study. Gerald has a high personal investment of time and financial resources committed to his business. He is actively involved in day-to-day business decisions and operations, as seen in Table 16.

Table 16. Personal characteristics (Case 1)

	Question	Response
Selection Criteria	Active in Starting Company	Yes
	Tech Startup Perception	Yes
	Innovation to build into a business	Yes
Active Involvement	Personal Stake	Strongly Agree
	Business Decisions	Strongly Agree
	Operations	Agree
Busines Information	Primary Industry	Assistive technology
	Specialist Technology	Yes
	Operations Outside Country Residence	Yes
	Country of Residence	United Kingdom
	Years of Industry Experience	5
	Years Active in Business	5
	Hours per week of work	45 - 55
	Current Company Role	Founder/Co-founder
	Co-founder/Business Partner	No
Personal Information	Gender	Male
	Age	40-49
	Spouse/Partner	Not at this time (single, divorced, etc)
	Education Level	Secondary / High School

4.3 Entrepreneurial orientation

In his initial questionnaire, Gerald distanced himself from the label of being an ‘entrepreneur’ (Table 17).

Table 17. Baseline for subjective appraisals of entrepreneurship (Case 1)

	Question	Response
Baseline perceptions	What comes to mind when you think of 'Entrepreneurship'?	A label either presented to people who do something entrepreneurial or a job specification that some aspire to.
	What comes to mind when you think of being an 'Entrepreneur'?	Not keen on the term as I feel it has been undervalued. I'm just doing something which can be described as entrepreneurial.

Gerald does not have any formal education or training in business and this was his first entrepreneurial venture. In his initial interview, he indicated that his entry into entrepreneurship followed a non-traditional and unplanned trajectory:

I never wanted to become an entrepreneur, but I just have a problem I wanted to fix and went into looking at how. An entrepreneur was something other people gave me as a label. But now it seems to be a job role. [...] I came at it from the point of view of somebody who saw a problem and wanted to find a solution to that problem. **(Gerald, Initial Interview)**

In this regard, Gerald believed he was unusual amongst his fellow entrepreneurs in focusing first on solving a particular problem that he had identified from his professional experience:

The world that I'm inhabiting now is full of people who want to be entrepreneurs and a smaller percentage of people who become entrepreneurial because they were finding a solution to a problem. **(Gerald, Initial Interview)**

Rather, Gerald presented his move into entrepreneurship as mainly about the possibility he could solve a particular problem he felt passionate about:

I always saw something. It was like following a light. I followed a light that I saw in front of me. I didn't go looking for a light. I saw a light, followed it and went "*well, now I've got to go in.*" I wasn't trying to be anything other than what I was. I was just following this possibility that there was something that I could do. **(Gerald, Initial Interview)**

Indeed, Gerald felt that his vision for his potential contribution was an important catalyst for becoming entrepreneurial:

Ultimately, if you believe in the light that you're following, everything else falls away and you just follow that light, and that's what I've done. Whether it ends up being a success or not, is not for me to know. **(Gerald, Initial Interview)**

Despite his resistance to the label of 'entrepreneur,' his entrepreneurial orientation can be seen in his willingness to act despite uncertainty and risk. This was based on his understanding of the problem and hope for developing a meaningful solution.

4.4 Catalyst for Change

Gerald's professional background included over 28 years working in public and charity sectors. This experience connects to his start-up company and practical goals to solve mobility challenges for people with physical impairments. He highlighted times when he could see possibilities, but he felt a lack of support for his ideas:

When I worked for the military police, [...] I was always looking at different, new ways of doing something. I was always banging my head against the brick wall because they weren't being accepted. **(Gerald, Initial Interview)**

Reflecting on his previous work experience, Gerald identified an emerging realisation of his entrepreneurial tendencies in his professional biography:

I was seeing things that could be done better. I recognized in myself that I was the person that would say, "I disagree, that could be done better". But I'd look at my colleagues and I'd see they were happy to just live with the status quo. [...] A person like me would be seen as the troublemaker by the boss, who just wanted all of the people to sit there doing their job. That works well in public sector or charity sector. You do not want somebody rocking the boat. **(Gerald, Initial Interview)**

He indicated feeling hamstrung, unable to put ideas for improvements into practice. Gerald reported feeling constrained by his pre-entrepreneurial employment:

When you recognise it yourself, you make a decision. I was becoming more and more frustrated, maybe depressed, because I was in a situation where I couldn't put into practice my ideas. When I did put my ideas into practice they weren't recognised as anything at all. I just, 'Pop'! Then I have the opportunity to go in every direction, because they just want you to go in one direction. **(Gerald, Initial Interview)**

Gerald highlighted barriers in his pre-entrepreneurship workplace as an impetus behind negative feelings about his work situation that led him to embrace an entrepreneurial trajectory. Against the backdrop of his experiences, Gerald highlighted how he believed entrepreneurial potential should be nourished in a company:

As a company, when you recognise [...] somebody who shows a spark of entrepreneurial talent, you need to try and see that person as an asset, rather than someone who is swimming against the stream. That's the biggest challenge for those guys. **(Gerald, Initial Interview)**

Gerald's personal narrative of his development as an entrepreneur highlights the difficulties he faced in being viewed as 'rocking the boat' or 'swimming against the stream'. Thus, in generalising from his personal experiences, Gerald suggested that those who think differently should be viewed as an 'asset', not as 'trouble makers'. This underpinned his perspectives throughout the diary study.

4.5 Within-Diary Variation

Over the course of the study, subjective appraisals were repeated longitudinally (18 stages). These subjective measures were taken first as a baseline within the initial questionnaire, prior to the initial interview and diary research (Table 18).

Table 18. Baseline for repeated subjective performance appraisals (Case 1)

	Question	Short name	Response
Repeated Measures Baseline	<i>'I am pleased with how my business is doing.'</i>	Business Progress	Agree
	<i>'The current context for my business is particularly challenging.'</i>	Challenging Business Context	Somewhat Agree
	<i>'My business faces a high degree of uncertainty.'</i>	Business Uncertainty	Somewhat Disagree
	<i>'My business decision making tends to be rushed.'</i>	Rushed Business Decisions	Somewhat Disagree
	<i>'I have accounted for the major issues facing my business.'</i>	Business Awareness	Agree
	<i>'My business feels out of control.'</i>	Business Control	Disagree
	<i>'I worry about my business failing.'</i>	Business Failure Worry	Disagree
	<i>'I feel equipped to handle the challenges facing my business.'</i>	Equipped for Challenges	Agree
	<i>'My business makes me feel stressed.'</i>	Business-related Stress	Disagree
	Further Explanation	I'm very relaxed about my business. I feel that people's understanding of what are wanting to achieve will take time. I am prepared to wait.	

The diary study in this case lasted for 78 calendar days, with each stage representing approximately 5 calendar days¹. An overview for all subjective measures and diary stages for this case are presented after the Chapter Summary, as displayed in Table 20.

¹ Days between diary entries calculated from Stage 2 to Stage 18; \bar{x} =4.58, min=3, max=8

4.5.1 Situation-specific Challenges

Gerald reported situation-specific challenges throughout the diary study phase of the research (11 stages, 64%; see Table 21). These challenges primarily corresponded with fluctuations in his appraisals of business uncertainty and challenging business context (see). Gerald presented a range of challenges, but consistently highlighted that he felt ‘happy’ with his business progress and his team’s efforts. This aligned with explanations he provided in interviews that his ‘character type’ was defined by an ability to maintain composure in the face of business challenges. These challenges were primarily indicated as *financially-oriented*, including funding proposal decisions (Stage 2 & 3), changes in sales pipeline (Stage 5), investment meetings (Stage 9), and investment presentations (Stages 17-18). Challenges also related to *business growth*, such as getting noticed (Stage 11) and balancing legal protection with growth opportunity (Stage 13), and growth in his team, including resolving potential team conflict (Stage 4) and interviews and decisions to hire staff (Stage 16). He presented *personal challenges*, including health (Stage 8) and self-doubt (Stage 10). Gerald reported these different business challenges at each stage with corresponding decisions and coping responses. The underlying connection between the challenges he reported, changes in his appraisals during the diary study and interview, and explanations indicated that he felt enabled by competent and supportive staff, while himself feeling *uncertainty* about actions to facilitate business growth. These were consistent dimensions in his appraisals and thus themes throughout this case.

4.5.2 Dynamic Response Patterns

Most of Gerald’s within-diary appraisals show overall stability in response patterns for subjective measures that represented perceptions of himself, his business and external context. Stability classifications are grouped based on identifiable response pattern characteristics, including overall valence, degree of variation and frequency of divergences (Table 19). Stable response patterns include minimal variation and infrequent divergences, while unstable patterns showed high variation and intermittent or longstanding divergences.

Table 19. Grouping of within-diary response patterns (Case 1)

Gerald (Case 1)		Valence	Divergence	Variation	Classification
					Stability
Group 1	Business Progress	Positive (1)	None (0)	None (0)	Stable (1)
	Business-related Stress (N)	Positive (1)	None (0)	None (0)	Stable (1)
	Business Failing Worry (N)	Positive (1)	None (0)	Minor (1)	Stable (2)
	Rushed Decision-making (N)	Positive (1)	None (0)	Minor (1)	Stable (2)
Group 2	Equipped for Business Challenges	Positive (1)	Acute (1)	Minor (1)	Stable (4)
	Business Control (N)	Positive (1)	Acute (1)	Minor (1)	Stable (4)
	Business Factors Awareness	Positive (1)	Acute (1)	Minor (1)	Stable (4)
Group 3	Business Uncertainty (N)	Positive (1)	Intermittent (2)	Minor (1)	Unstable (3)
	Challenging Business Context (N)	Negative (2)	Intermittent (2)	High (2)	Unstable (4)

The dynamic response patterns for seven subjective measures met Stable criteria. Two groups of stable measures were identified. The first group consisted of four appraisals: Business Progress, Stress, Failure Worry and Rushed decisions. Only minor variations and no divergences to *negative* appraisals were given on these measures regardless of reported challenges. Explanations for stability on these measures were available primarily through his interviews. The second group consisted of three measures: Equipped to handle Challenges, Business Control, Factor Awareness. Explanations at various stages that helped to account for continuity in his responses. Alternatively, the dynamic response patterns for two subjective measures met Unstable criteria. This third group consisted of two measures: Business Uncertainty and Challenging Context. Multiple negative divergences corresponded with situation-specific challenges that Gerald faced during the diary study.

4.5.2.1 Stable Response Patterns

The dynamic response patterns for seven subjective measures were classified as Stable during the diary study.

(1) No divergence

This first group consisted of four Stable measures: Business Progress, Stress, Failure Worry and Rushed Decisions. Explanations for stability on these measures were available primarily through his interviews.

(a) Business Progress

Gerald's positive ($f=18$, 100%) appraisals were represented by *agreement* with the statement, *'I'm pleased with how my business is doing'* (Figure 15). The overall continuity on this measure confirmed his stable perception of business progress.



Figure 15. Appraisals of business progress (Case 1)

Qualitative interviews highlighted explanations for this stable pattern. In his initial interview, Gerald acknowledged substantial difficulties he faced and expressed satisfaction with business progress:

Surviving is a hell of a challenge. Getting products that we know work is an amazing accomplishment. Getting the belief of so many people, getting in front of the biggest companies in the United Kingdom and having half an hour where you talk to them and they go, "that was bloody brilliant." When you're told that you're doing the right things, then these are all pretty cool moments. **(Gerald, Initial Interview)**

While he noted the challenge of running a business, others he spoke with helped him maintain a positive view of his progress. This social reinforcement helped him maintain a sense of satisfaction that was evident throughout the diary study and final interview:

Yeah, business has done brilliantly in that time. We have so many things happen, it is absolutely insane. [...] I need to be quite aware that if you had said to me, this time last year or even six months ago, what we would be doing now, I wouldn't have believed you. **(Gerald, Final Interview)**

From his perspective, not being able to predict where his business might end up was due to incremental changes that he could not perceive while engaged with his business:

It's like watching a child grow. You don't see a child grow if you're a parent, but if you're an uncle you go, "I haven't seen you for six months, look at how tall you are." Being close to the child you don't see these incremental changes, but when you tell other people and you can see the wonder in their eyes about what you've done. **(Gerald, Final Interview)**

In this way, outside feedback was another consistent way for Gerald to appraise business progress. Indeed, his satisfaction with progress was evident despite the downward trend in his personal financials since starting his business five years ago:

When I started this, I had two houses and decent money in the bank. Now I have one house that my mom lives in and I rent, and I sold the other house. I have no personal wealth at all or belongings and I totally gave all that up. I realised when I gave it up that I didn't need it - it was all just stuff. **(Gerald, Final Interview)**

Indeed, he sold his assets before the diary study and used his savings to sustain himself financially. Nonetheless, he remained optimistic that things would work out over time:

[Recalling a date four years ago] was the last time I received a pay cheque. Since then, I've just been living off my saving. If you draw a graph of my savings, they go all the way down. I'm down to my last twelve hundred quid now. That will last me another four months or something like that because I don't spend much. You're looking at that coming down all the time. I don't mind going to zero. [...] it's all been funded and done above any debt and we haven't given much equity either. The risk is, well... "how much are you prepared to gamble?" and I guess, all of it. Hell yeah! **(Gerald, Final Interview)**

Gerald's positive appraisals of performance were apparently connected to a high tolerance of risk in his willingness to gamble but seemed disconnected from his increasingly tenuous financial situation. These explanations show his tendency

towards experiencing challenges as stimulating, rather than stressful or depleting. Thus, continuity on this measure over multiple stages is best encapsulated in the seeming contradiction between his optimistic attitude towards business progress, despite also acknowledging inherent risks.

(b) Business-Related Stress

Gerald’s provided positive ($f=18$, 100%) appraisals of business-related stress represented by his *disagreement* with the statement, ‘My business makes me feel stressed’ (Figure 16). The overall continuity on this measure confirmed his stable demeanour towards not feeling stress.

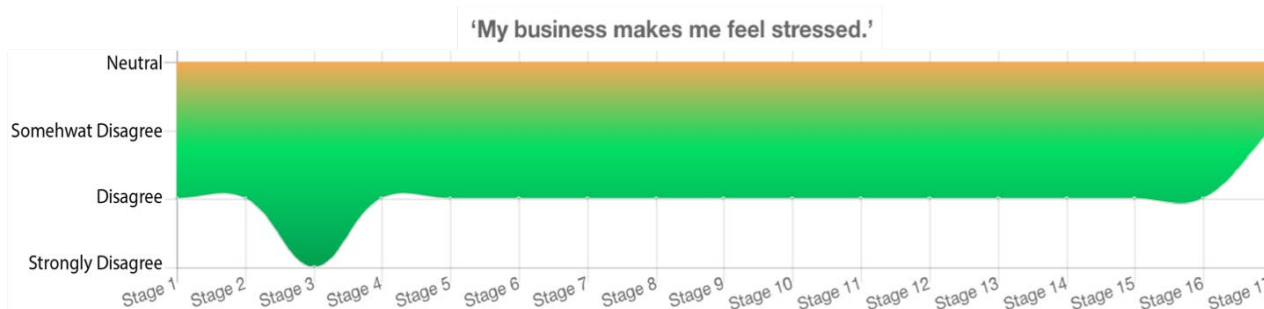


Figure 16. Appraisals of business stress (Case 1)

Gerald responded with low stress during the diary study. Explanations beyond the diary study that accounted for this stability were available primarily through his interviews. He attributed his experience of business-related stress to his general demeanour:

That’s the only explanation I’ve got [for not feeling stressed]; character types. I don’t know why, but I don’t feel the stress of failure, [...] maybe because I don’t believe there will be, but I don’t feel stress of the day-to-day work. **(Gerald, Initial Interview)**

According to Gerald, his general demeanour had extended into his approach for addressing business-specific challenges:

I don’t feel particularly challenged. That’s really weird. Somebody said to me the other day about stress, ‘how stressed are you?’ I’m not stressed at all and I don’t know why that is. It’s gets down to character type. That’s the only explanation I’ve got. **(Gerald, Initial Interview)**

However, Gerald had difficulty explaining why he did not feel stress in his business beyond this general attribution. To express this self-understanding, he presented a retrospective account in his final interview of challenges (Stages 17 and 18) with business presentations:

The presentation was just something I knew was coming up. But feeling stress is a reflection of understanding self and I have very little understanding of self, I just do it. That's a learned behaviour. **(Gerald, Final Interview)**

Gerald indicated his 'learned behaviour' was to act rather than be self-reflective. This directly connects to an account he provided of pre-entrepreneurial experiences as a public speaker, he stated previously feeling '*useless*', would '*run out of breath*' and had '*no ability to do it*'. He indicated learning to feel comfortable with himself by talking about topics he knew well and felt passionate towards. From feedback he received, he learned that others would still accept him if he got something wrong. He explained how important this earlier experience was for self-understanding and his experience of stress:

This is fundamental... it's **not** confidence I'm going to do it *right*, it's a lack of fear that I'm going to get it *wrong*. That is so fundamental to who I am. It's a matter of self-assurance. People get that mixed up. You could say that if somebody displayed my attributes, they would be 'cocky' or 'arrogant' and I've never thought that I'm that person. I'd be at the other end of that spectrum, which is the person who doesn't mind if he gets it wrong. But it doesn't come across when you show confidence. **(Gerald, Final Interview)**

Gerald acknowledged that displaying his personal characteristics might be confused by others as arrogance. Rather, he clarified his current self-concept mostly benefited from pre-entrepreneurial experiences that helped him to learn a '*lack of fear*' and willingness to '*get it wrong*'. Thus, what he perceived as his general demeanour towards low stress and self-assurance could be better attributed to personal development prior to entrepreneurship.

(c) Business Failure Worry

Gerald's positive ($f=18$, 100%) appraisals of his worry about business failure were represented by his *disagreement* with the statement, 'I worry about my business failing' (Figure 17). While minor variations were evident, continuity in his appraisals confirmed a lack of worry about business failure that was generally stable.



Figure 17. Appraisals of business failure worry (Case 1)

Gerald responded with low worry about business failure during the diary study. He provided an explanation for how he managed his worry about failure:

I have learned how to manage my emotions. Failure is always a consideration, but I believe that failure is not an absolute but more a stop along the journey and not a destination. **(Stage 2)**

He highlighted his view of business as a 'journey' in which failure represented temporary setbacks. Beyond the diary study, explanations that accounted for this stability were available primarily through Gerald's interviews.

In his initial interview, Gerald considered that regardless of outcomes, managing his emotions was about keeping a balanced mindset:

Everybody says you have to celebrate success and the failure, or at least be aware about it and somewhere in the middle is probably better, where you never get too happy but you never get too unhappy. If you can stabilise that... I manage to stabilise it and realise that there's no point in getting upset. **(Gerald, Initial Interview)**

While he indicated awareness of highs and lows in his entrepreneurial journey, keeping responses balanced was about not dwelling on past mistakes. Connected to his

desire to solve a meaningful social problem (see 4.3 Entrepreneurial orientation), Gerald indicated that failure for him was not helping the people he set out to help:

My main concern is still finding the solution to the problem and making sure that solution gets out there, because that's ultimately what I need to do. Whatever I deliver has to help the people that I wanted to help; If it doesn't, well, I've failed. [...]. So, that's the pressure. If I fail, it would be because people didn't understand it. But I'm getting the feeling that they're understanding it. In fact, they're buying into it very quickly. **(Gerald, Final Interview)**

In this regard, he assessed his largest potential risk being whether people failed to understand what he was trying to do. He indicated his willingness to externalise blame for potential failure. However, from validation he received, he indicated feeling confident he would not fail and thus expressed that he worried less about specific challenges along the way in his entrepreneurial journey. This had a direct relationship to stability in Gerald's low business-related stress and high optimism towards business progress. Nonetheless, Gerald reported situation-specific challenges during the observation period when he felt rushed to make decisions and respond to challenges.

(d) Rushed Decisions

Gerald's positive ($f=16$, 89%) appraisals of rushed business decisions were represented by his *disagreement* with the statement, '*My business decision making tends to be rushed*' (Figure 18). Minor variations to *neutral* were evident at Stages 2 and 4, yet continuity of his appraisals indicated his generally stable perception towards not making rushed decisions.

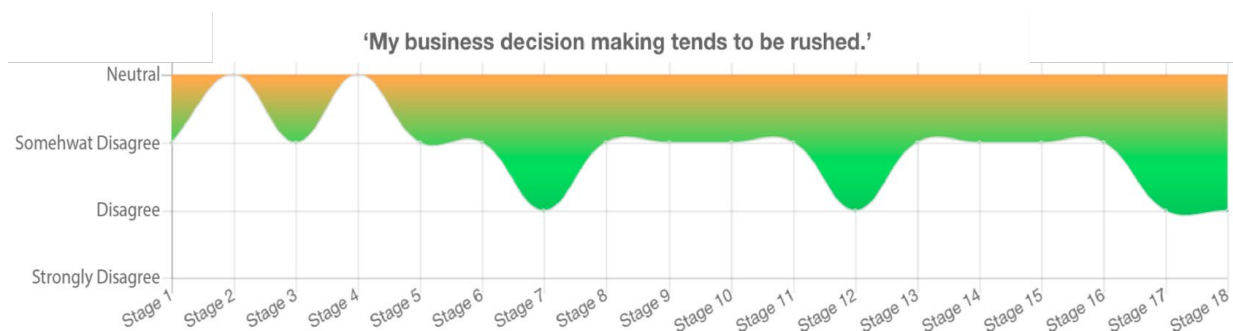


Figure 18. Appraisals of rushed business decisions (Case 1)

While accounts presented a range of challenges, minor fluctuations at Stages 2 and 4 indicated specific situations when his decisions felt more rushed than normal. These situations included funding proposal decisions (Stage 2), as outlined further under Challenging Context, and potential conflict in his team (Stage 4):

Internal staff communication and challenge of making sure that a person's ego is not damaged whilst ensuring that my requirements were met. **(Stage 4)**

His decision was to address this issue by approaching his staff positively:

The staff member was given praise for work carried out. **(Stage 4)**

His further explanation indicated a continued positive view of his business progress:

I continue to be happy with our progress. We're gaining interest in our sectors with press reports on our work and professional and public interest in our products. **(Stage 4)**

Gerald's appraisal of this challenge related closely with his personal narrative which highlighted seeing himself as a 'troublemaker'. His response indicated an alignment with this appraisal as he approached his staff member as an 'asset,' not as a 'troublemaker' (see 4.4 Catalyst for Change). No further problems were indicated during the diary study as a result of this temporary conflict.

(2) Acute divergence

This second group consisted of three Stable measures: Equipped to handle Challenge, Control, Factor Awareness. These measures consisted of minor variations and acute divergences that corresponded with specific challenges.

(e) Equipped for Business Challenges

Gerald's positive ($f=17$, 94%) appraisals were represented by his *agreement* with the statement, '*I feel equipped to handle the challenges facing my business*' (Figure 19). Minor variations were evident including one divergence at Stage 10. Continuity indicated a stable perception of his ability to handle business challenges.

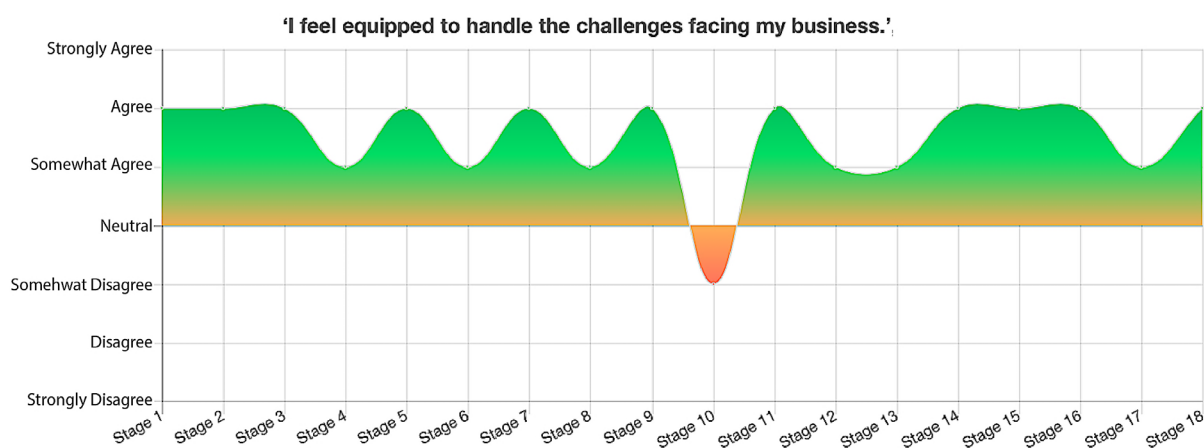


Figure 19. Appraisals of feeling equipped to handle challenges (Case 1)

Gerald provided an explanation **Stage 10**, but he did not offer any specific challenge. Rather, his explanation indicated self-doubt for handling the challenge he faced:

Massive potential being realised. I would be crazy to think I was qualified to be skilled to deal with all the challenges. **(Stage 10)**

His self-assessment reflected uncertainty about *personal* ability to handle positive business developments and ‘potential’ for his business. Gerald’s explanation also aligned with a *negative* appraisal of Control, providing context for this assessment that would not be evident without multiple stages.

In his initial interview, Gerald gave context to his *negative* appraisal when he noted importance of staff for completing work and speeding up business progress:

I can’t be anything but impressed with everything that we’ve done. I know that we’ve achieved remarkable amount. It’s purely because I’ve gone from one person – me – talking about stuff, to two. I’ve been realising what are foundational stuff I should’ve been doing but wasn’t able to do because I didn’t know, so couldn’t have done it. Even if I’d known, I wouldn’t have had time to do it. **(Gerald, Initial Interview)**

While past experience helped him feel capable of handling challenges in his business, his team was important for addressing business-specific requirements that Gerald felt unable to handle by himself. In this way, this challenge in this diary account represented doubts and uncertainties that he had to work through with support.

(f) Business Control

Gerald's overall positive ($f=17$, 94%) appraisals were represented by his consistent *disagreement* with the statement, 'My business feels out of control' (Figure 20). While one negative divergence was evident at Stage 10, continuity on this indicated his stable perceptions of feeling in control of his business.



Figure 20. Appraisals of business control (Case 1)

As indicated, Gerald expressed his uncertainty and self-doubt at this stage about *personal* ability to handle 'all of the challenges' he faced. This divergence aligned with dynamic response patterns for (e) Equipped for Business Challenges. This situation apparently impacted him as a view of his personal limits and control of his business in light of positive developments he felt less equipped or unable to address.

(g) Business Factors Awareness

Gerald's positive ($f=16$, 89%) appraisals were represented by *agreement* with the statement, 'I have accounted for the major issues facing my business' (Figure 21). Minor variations were evident including two acute, negative divergences at Stages 6 and 11, indicating short-term challenges that shifted Gerald's appraisals. Continuity in his appraisals showed a stable perception of accounting for issues facing his business.

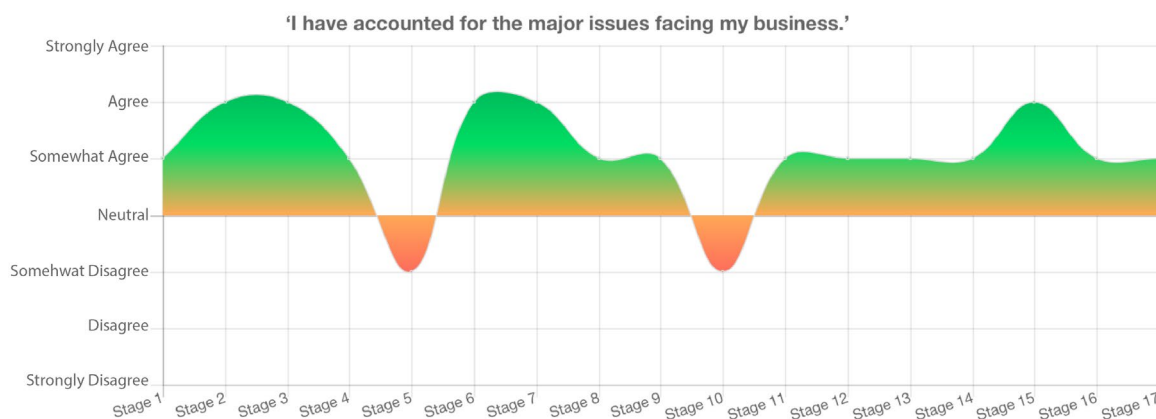


Figure 21. Appraisals of major issues facing business (Case 1)

Explanations during the diary study indicated positive business developments that he perceived externally to his business (Stage 6) and a stimulated and positive sense of satisfaction with his business progress (Stage 11).

At **Stage 6**, Gerald did not report a specific challenge, but offered further explanation indicating an increased awareness and optimism about business opportunities:

I continue to enjoy the process as much as the possibility of arriving. I have a great team who work very hard. We have numerous opportunities in front of us. Looking forward to finding out if they come off. (**Stage 6**)

This account related to positive business developments, both internally with his team and externally with opportunities. He also provided a *neutral* appraisal of Uncertainty, indicating an apparent connection with these business developments.

At **Stage 11**, his challenge was to meet demands from gaining interest: “How to deal with an explosion of interest in your work.” He noted a decision was to act and bring in external support: “Work harder and also bring in a consultant.” His anticipated outcome was a further sense of satisfaction: “It’s only going to get more exciting.” He offered an explanation confirming this perception: “Loving what we are doing right now.” The divergence also corresponded with a negative appraisal of Challenging Context, indicating a possible relationship between his awareness of challenges external to his business.

4.5.2.2 Unstable Response Patterns

The response patterns for two subjective measures met Unstable criteria.

(3) *Intermittent Divergences*

This third group consisted of two measures: Business Uncertainty and Challenging Context. Multiple negative divergences represented changes in his appraisals due to correspondence with challenges he faced during the diary study.

(h) *Business Uncertainty*

Gerald's appraisals of business uncertainty were *mixed*, represented by intermittent variations in his level of *agreement* with the statement, 'My business faces a high degree of uncertainty' (Figure 22). While the majority of his appraisals were positive ($f=9$, 50%), there were negative ($f=3$, 18%) divergences at Stages 8, 9, and 12. In this way, rising and falling in his appraisals of uncertainty was impacted more frequently by acute challenges that then shifted his appraisals. This lack of continuity indicated an unstable perception of business uncertainty.

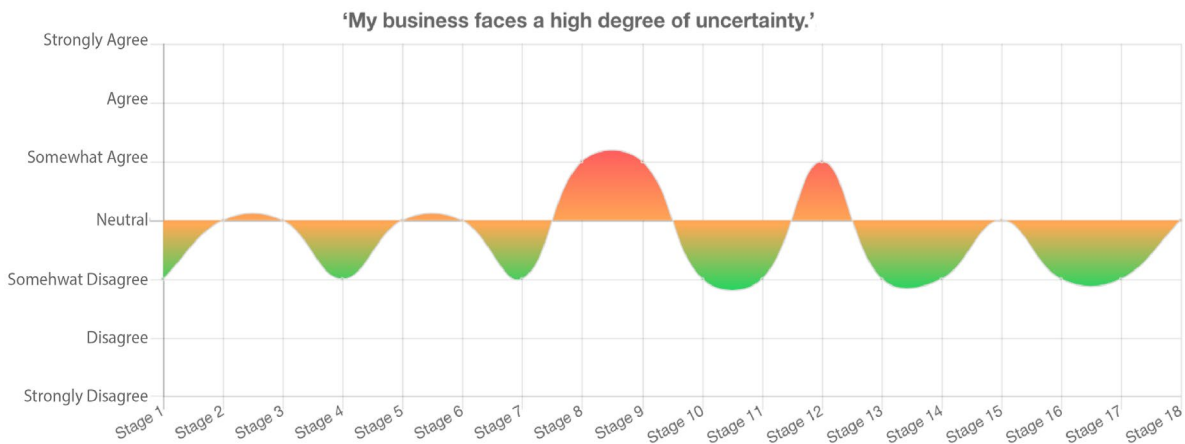


Figure 22. Appraisals of business uncertainty (Case 1)

Explanations for these negative appraisals indicated that Gerald considered the challenges facing his business in relation to future outcomes. These negative appraisals of uncertain aligned with reported challenges:

1. Personal health (**Stage 8**)
2. Investor meetings (**Stage 9**)
3. Business growth (**Stage 12**)

Addressing routine challenges

At **Stage 8**, he reported a challenge with personal health: “Ill health.” His decision in response to this challenge was to take time to recover and delegate to his team: “[...] get better but in the meantime leave the work up to my team.” His further explanation included a stimulated and positive sense of satisfaction with his business progress: “Very happy with the business and how it moves forward.” This diary account regarded a need to take a break from the business because of personal health. Because his staff were in place to support him while he recovered, this challenge had no long-term impact on him or his business.

At **Stage 9**, he reported a subsequent negative appraisal aligned with a specific challenge, “Investment meetings.” He did not provide any business decisions, but his anticipated outcome was an intended action: “Direct approaches to investors.” His further explanation included a stimulated and positive sense of satisfaction with his business progress: “Happy with the business and the belief I have in my team. We are closing on quite fantastic deals.” This stage included a negative appraisal of Challenging Context. Thus, making this relationship visible between increased uncertainty and awareness of external challenges.

At **Stage 12**, Gerald did not report a challenge related to his negative appraisal, but he did provide further explanation: “All good this week. Excited to be moving forward into another week.” This account also coincided with a negative appraisal on Challenging Context but still related to a positive and stimulated sense of satisfaction with his business.

In each of these stages, Gerald reported uncertainty facing his business while also indicating positive assessments of business performance and a collegiate attitude towards staff. While he acknowledged uncertainty at multiple stages through the diary study, these fluctuations did not necessarily represent negative experiences or novel challenges. Rather, Gerald considered his business performance in relation to routine challenges internally but uncertainty in his business context.

(i) Challenging Business Context

Gerald presented *mixed* negative ($f=9$, 50%) and positive ($f=8$, 44%) appraisals of his current business context. The majority of his appraisals on this subjective measure were negative, represented by *agreement* with the statement, ‘*The current context for my business is particularly challenging*’ (Figure 23). This lack of continuity in his appraisals indicated a generally unstable perception.

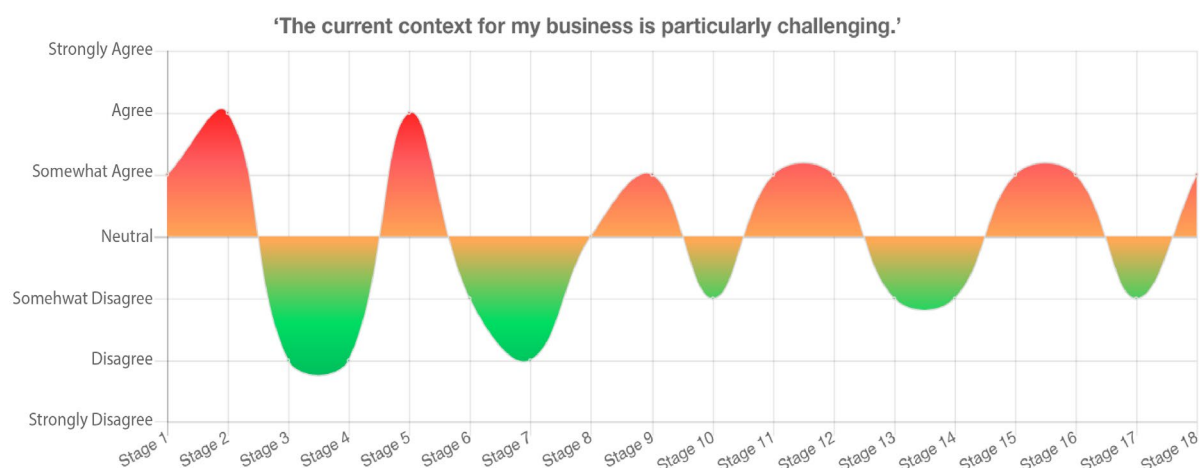


Figure 23. Appraisals of challenging business context (Case 1)

Explanations were available through diary accounts and interviews. These appraisals had corresponding challenges:

1. Funding proposal decisions (**Stage 2**)
2. Changes in sales pipeline (**Stage 5**)
3. Personal health (**Stage 8**)
4. Investment meetings (**Stage 9**)
5. Getting noticed (**Stage 11**)
6. Interviews and decisions to hire staff (**Stage 16**)
7. Investment presentations (**Stage 18**)

Navigating entrepreneurial activities

At **Stage 2**, he specified a challenge with funding proposal decisions: “Decisions on incredibly large tender opportunities.” He reported his anticipated outcome, “Follow through in applications and communications.” His further explanation was considering his business endeavour as a journey:

I have learned how to manage my emotions. Failure is always a consideration, but I believe that failure is not an absolute but more a stop along the journey and not a destination. **(Stage 2)**

At this stage, all appraisals were positive except for this negative appraisal of Challenging Context and neutral appraisal of Business Uncertainty. His perspective about managing emotions indicated doubts and uncertainties with business growth, rather than unfavourable experiences.

At **Stage 5**, he reported a challenge associated with sales, “Daily sales pipeline movement.” In response to this challenge, his decision was to set priorities to take direct action: “Listing and ordering the priorities.” His anticipated outcome was reported as usable strategy: “Plan to move forward with.” He provided further explanation with his positive sense of satisfaction with business progress, “Very happy with progress at this time.” This account related to positive business developments (e.g., sales movement), while also indicating a neutral appraisal of Uncertainty.

At **Stage 11**, his reported challenge was to meet demands from gaining interest and his decision to act and bring in external support. His anticipated outcome was further satisfaction. The negative appraisal of Factor Awareness indicated concern for external factors. At **Stage 15**, he did not report a specific challenge but his further explanation included a positive sense of satisfaction with his business, “Very happy with progress. Happy Easter.” All appraisals were positive, except for a neutral appraisal of Uncertainty.

At **Stage 16**, he presented a challenge with interviews and decisions to hire staff: “New staff interviews and having to inform people that they have not got the job.” His decision in response to this challenge was, “Contacted each applicant personally” and anticipated outcome, “It’s all good. Meeting with a couple of applicants.” His further explanation included a positive sense of satisfaction with business progress and support from staff:

It’s all good although we are getting closer to a product launch and I am just keeping my head down and allowing my team to do what they do best without me running around micromanaging and stressing people.
(Gerald, Stage 16)

This diary account related to positive business developments (e.g., improved sales) and collegiate attitude towards his staff. All other appraisals were positive.

At **Stage 18**, he presented a challenge associated with investment presentations: “Pitches of various lengths all in the same week.” His decision in response to this challenge was, “Go for it” and his anticipated outcome to this challenge was reported, “I will have gone for it.” His explanation included a stimulated and positive sense of satisfaction with his business progress and support from his staff, “Lots of pitching for various events. The shorter the pitch the more hassle.” This diary account related to positive business developments and collegiate attitude towards his staff (e.g., improved sales), yet also coincided with a neutral appraisal on Business Uncertainty.

This particular range of challenges was foregrounded during Gerald’s initial interview. In a meeting with his investors just before the interview, he stated they had expressed discontent about not hitting performance targets. However, Gerald considered business progress in relation to business context and challenges he faced:

I don’t feel bad about [not meeting the investors targets] at all because it’s not our fault that we haven’t hit the targets exactly as they had in the plan. Not many people are in the environment we are, especially in technology. **(Gerald, Initial Interview)**

Rather than attributing his investors’ scrutiny about not meeting targets to personal limits, Gerald’s appraisal of a difficult ‘environment’ helped him reaffirm *positive* business performance in relation to his niche market. While he acknowledged uncertainty at multiple stages through the diary study, this appeared to limit negative effects from facing external challenges by allowing him to take immediate action based on his present understanding of a situation.

4.6 Chapter Summary

Gerald continually expressed a focus on delivering a solution to the people he wanted to help. He expressed preferences for external approval, acknowledgement and recognition that acted as sources of validation and business progress, rather than through financial indicators alone, such as investments and sales. This external validation and sense of purpose appeared to surpass other concerns, such as his

personal financial resources, which had been declining steadily for the last 5 years. By the final interview, he expressed feeling financial pressure, but was nonetheless optimistic because of his stimulated and positive sense of continuous business progress. Other possible concerns were less evident in this case, including personal challenges with health, stress, or responsibility for the well-being of a family (given he did not have notable family responsibilities).

His experience of challenges and uncertainty were most connected to his awareness of external factors. He held a positive view of his past actions, expressing his feeling that he had not done anything “too drastically wrong”. Instead, Gerald suggested that difficult factors in the environment had prevented his business ideas from taking shape faster. This indicated his tendency to externalise challenges in order to maintain a positive self-concept and sense of business progress. This was most evident as tension between his inclination towards big picture thinking and more technical, daily work in his business which he expressed feeling happy to delegate. He offered a positive perspective of staff, whom he generally found competent and supportive. By bringing others into the business, Gerald was able to offset his personal weaknesses and a lack of business-specific knowledge.

Gerald’s coping strategies integrated realistic concerns about business challenges and risks with a generally stable and optimistic outlook. In this regard, fluctuations in his appraisals of uncertainty and business environment did not necessarily represent negative experiences, but they did indicate doubts that Gerald had to work through. Finally, his coping strategies appeared rooted in his broad characterisation of entrepreneurial activities as taking place within a learning process that required time and personal development, whereby achievements were part of an overall journey.

Table 20. Diary study longitudinal measures of subjective assessments (Case 1)

	Short name	Business Performance	Challenging Business Context (N)	Business Uncertainty (N)	Rushed Decision-making (N)	Business Factors Awareness	Business Control (N)	Business Failing Worry (N)	Equipped for Business Challenges	Business-related Stress (N)
Baseline	Stage 1	Agree	Somewhat Agree	Somewhat Disagree	Somewhat Disagree	Agree	Disagree	Disagree	Agree	Disagree
Repeated Measures	Stage 2	Strongly Agree	Agree	Neutral	Neutral	Somewhat Agree	Somewhat Disagree	Somewhat Disagree	Agree	Disagree
	Stage 3	Strongly Agree	Disagree	Neutral	Somewhat Disagree	Agree	Disagree	Disagree	Agree	Disagree
	Stage 4	Strongly Agree	Disagree	Somewhat Disagree	Neutral	Agree	Disagree	Somewhat Disagree	Somewhat Agree	Strongly Disagree
	Stage 5	Strongly Agree	Agree	Neutral	Somewhat Disagree	Somewhat Agree	Somewhat Disagree	Somewhat Disagree	Agree	Disagree
	Stage 6	Strongly Agree	Somewhat Disagree	Neutral	Somewhat Disagree	Somewhat Disagree	Disagree	Disagree	Somewhat Agree	Disagree
	Stage 7	Strongly Agree	Disagree	Somewhat Disagree	Disagree	Agree	Disagree	Disagree	Agree	Disagree
	Stage 8	Strongly Agree	Neutral	Somewhat Agree	Somewhat Disagree	Agree	Somewhat Disagree	Somewhat Disagree	Somewhat Agree	Disagree
	Stage 9	Agree	Somewhat Agree	Somewhat Agree	Somewhat Disagree	Somewhat Agree	Somewhat Disagree	Disagree	Agree	Disagree
	Stage 10	Strongly Agree	Somewhat Disagree	Somewhat Disagree	Somewhat Disagree	Somewhat Agree	Somewhat Agree	Disagree	Somewhat Disagree	Disagree
	Stage 11	Strongly Agree	Somewhat Agree	Somewhat Disagree	Somewhat Disagree	Somewhat Disagree	Disagree	Disagree	Agree	Disagree
	Stage 12	Strongly Agree	Somewhat Agree	Somewhat Agree	Disagree	Somewhat Agree	Somewhat Disagree	Somewhat Disagree	Somewhat Agree	Disagree
	Stage 13	Strongly Agree	Somewhat Disagree	Somewhat Disagree	Somewhat Disagree	Somewhat Agree	Somewhat Disagree	Disagree	Somewhat Agree	Disagree
	Stage 14	Strongly Agree	Somewhat Disagree	Somewhat Disagree	Somewhat Disagree	Somewhat Agree	Somewhat Disagree	Disagree	Agree	Disagree
	Stage 15	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Somewhat Agree	Somewhat Disagree	Disagree	Agree	Disagree
	Stage 16	Agree	Somewhat Agree	Somewhat Disagree	Somewhat Disagree	Agree	Somewhat Disagree	Disagree	Agree	Disagree
	Stage 17	Strongly Agree	Somewhat Disagree	Somewhat Disagree	Disagree	Somewhat Agree	Somewhat Disagree	Disagree	Somewhat Agree	Disagree
	Stage 18	Agree	Somewhat Agree	Neutral	Disagree	Somewhat Agree	Somewhat Disagree	Somewhat Disagree	Agree	Somewhat Disagree

Table 21. Business challenges by longitudinal stage (Case 1)

	Short Name	Business Challenges	Challenges Addressed	Business Decisions	Anticipated Outcomes	Further Explanation
Baseline	Stage 1					I'm very relaxed about my business. I feel that people's understanding of what they are wanting to achieve will take time. I am prepared to wait.
Repeated Measures	Stage 2	Yes	Decisions on incredibly large tender opportunities.		Follow through in applications and communications	I have learnt how to manage my emotions. Failure is always a consideration but I believe that failure is not an absolute but more a stop along the journey and not a destination.
	Stage 3	Yes	Large contract and funding discussions.		More conversations.	Very happy with my business and my team who are exceptional...
	Stage 4	Yes	Internal staff communication and the challenge of making sure that a persons ego is not damaged whilst ensuring that my requirements were met.	I addressed the issue	Improvement within team. The staff member was given praise for work carried out.	I continue to be happy with our progress. We are gaining a lot of interest in our sectors with press reports on our work and professional and public interest in our products.
	Stage 5	Yes	Daily sales pipeline movement.	Listing and ordering the priorities.	Plan to move forward with	Very happy with progress at this time.
	Stage 6	No				I continue to enjoy the process as much as the possibility of arriving. I have a great team who work very hard. We have numerous opportunities in front of us.. Looking forward to finding out if they come off.
	Stage 7	No				All is well in the world
	Stage 8	Yes	Ill health.		Get better but in the meantime leave the work up to my team.	Very happy with the business and how it moves forward.
	Stage 9	Yes	investment meetings.		Direct approaches to investors.	Happy with the business and the belief i have in my team. We are closing on some quite fantastic deals.
	Stage 10	No				Massive potential being realised. I would be crazy to think I was qualified to be skilled to deal with all the challenges.
	Stage 11	Yes	How to deal with an explosion of interest in your work	Work harder and also bring in a consultant.	Its only going to get more exciting.	Loving what we are doing right now.
	Stage 12	No				All good this week. Excited to be moving forward into another week.
	Stage 13	Yes	Keeping NDA's under wraps whilst ensuring we maximise opportunity.		All good. Dealt with challenge.	Moving towards the launch of a product there is more to do and more to think about doing. Exciting times.
	Stage 14	No				Very happy with progress.
	Stage 15	No				Very happy with progress. Happy Easter.
	Stage 16	Yes	New staff interviews and having to inform people that they have not got the job.	Contacted each applicant personally.	Its all good. Meeting with a couple of the applicants.	Its all good although we are getting closer to a product launch and I am just keeping my head down and allowing my team to do what they do best without me running around micromanaging and stressing people.
	Stage 17	Yes	Three pitches back to back for different organisations.. 1 minute 3 minute 25 minute. Not an easy task.	I just did it.	I need to improve.	I'm happy.. just tired.
	Stage 18	Yes	Pitches of various lengths all in the same week.	Go for it.	I will have gone for it.	Lots of pitching for various events. The shorter the pitch the more hassle.

CHAPTER 5: CASE STUDY 2 (BENJAMIN)

5.1 Introduction

Individual-level longitudinal results are presented in this chapter for ‘Benjamin’. These results draw on the full range of empirical data available, including the pre-diary (initial) questionnaire and qualitative interview, the diary study (22 stages) and the post-diary (final) qualitative interview. Data have been analysed inductively, as outlined under 3.6 Data Analysis Methods.

5.2 Personal Background

Benjamin is CEO and founder of his company specialising in digital marketing services and business consulting. He is an American black male in his mid-thirties living in a large city in the Pacific Northwest (United States). He completed postgraduate (masters) education in business and is also a lecturer in business at a local community college. He built and runs a non-profit to help underprivileged families and teenagers in his local community. After 10 years with his non-profit, he translated his experiences into recognising an opportunity for his subsequent commercial venture. He has remained active in this venture since it was founded 2 years prior to participation in this research. Benjamin has a high personal stake and commitment in the success of running both entrepreneurial ventures concurrently. He works primarily in sales and business development and has a business partner who helps in day-to-day operations. Benjamin is actively involved in both business decisions and helping his partner make progress in operations, as seen in Table 22.

Table 22. Participant characteristics (Case 2)

	Question	Response
Selection Criteria	Active in Starting Company	Yes
	Tech Startup Perception	Yes
	Consent to participate	Yes
Active Involvement	Personal Stake	Strongly Agree
	Business Decisions	Strongly Agree
	Operations	Strongly Agree
Business Information	Primary Industry	Consulting and Digital Marketing Services
	Specialist Technology	Ourselves
	Outside Country of Residence	No
	Country of Residence	United States
	Industry Experience	11 years
	Active in Business	1.5 years
	Hours per week of work	45 - 55
	Current Company Role	Founder/Co-founder
	Co-founder/Business Partner	No
Personal Information	Gender	Male
	Age	30-39
	Spouse/Partner	Not at this time (single, divorced, etc)
	Education Level	Postgraduate Degree / Masters
	Masters Subject Area	Business

5.3 Entrepreneurial orientation

In his initial questionnaire, Benjamin associated with the demands and pressure of being an 'entrepreneur' (Table 23).

Table 23. Baseline for subjective appraisals of entrepreneurship (Case 2)

	Question	Response
Baseline perceptions	In general, what comes to mind when you think of 'Entrepreneurship'?	Individuals seeking out a lifestyle contrary to the masses.
	What comes to mind when you think of being an 'Entrepreneur'?	Hard work and sacrifices.

Benjamin has an education in business and experience building and running both non-profit and for-profit organisations. His trajectory into entrepreneurship developed from his non-profit, with a start that was non-traditional and unplanned:

Early on, I wanted to become a computer scientist and give back to underprivileged families in the community. I had to start from scratch. *I had a dream that I needed to start a non-profit and, in the dream, I needed to serve teenagers* [emphasis added]. **(Benjamin, Initial Interview)**

He clarified that starting the non-profit originated from his personal motivation and perception of opportunities he lacked as a teenager. He translated experiences from 10 years of building his non-profit into later building a commercial venture with his business partner:

In my for-profit, I'm the CEO and with my partner, I focus more on the sales, and she focuses on the logistics. And with my non-profit she's a board member, but she still helps me with the same elements; I'm obviously still the face. **(Benjamin, Initial Interview)**

He indicated shared responsibilities in the business and his role to ensure viability:

I'm still responsible for generating the right ideas to keep our businesses alive. **(Benjamin, Initial Interview)**

In hindsight, he indicated learning about himself as an entrepreneur and leader through the process of building his non-profit:

With 10 years looking back, I can say, 'I did this good, I did that bad'. It takes time for you to evaluate. *Of course, experience is the best teacher, but to get the experience, you have to do it* [emphasis added]. Over time things are so much clearer, but not when I was doing it. You need a sincere passion. People will latch on, they'll believe. But if you're not authentic, not genuine, not who are with the passion of leading, then it's hard. Now I have a clearer direction and vision. **(Benjamin, Initial Interview)**

In this regard, Benjamin's entrepreneurial orientation can be seen in his willingness to build proactively from his passion, despite the uncertainty and risks of extending beyond his initial abilities and comfort zone, to pursue his for-profit venture and lifestyle goals.

5.4 Catalyst for Change

Benjamin's professional background included over 10 years of setting up and running his own non-profit that helps underprivileged families and teenagers in his local community. Benjamin's narrative as an entrepreneur highlights his personal development while facing entrepreneurial challenges in his non-profit. This experience connects to his commercial venture and decision to provide digital marketing and business services. He highlighted the trajectory to starting his organisations:

The for-profit was created in 2015, which stemmed from my non-profit that I opened in 2006. I had the idea back in 2004. That really stemmed from my college education and career starting in 2001. **(Benjamin, Initial Interview)**

In reconstructing the trajectory to his for-profit endeavour, Benjamin noted prominent barriers when starting his non-profit endeavour:

*One of the initial challenges when I was starting the non-profit was finding someone with actual experience to tell me the right steps to take [emphasis added]. Everybody had experts. In the non-profit world, it's really just folks leading that non-profit but never starting a non-profit. They would tell me things to look for. For example, they'd say, 'find another organisation that you want to be, follow them, mimic them'. **(Benjamin, Initial Interview)***

Benjamin tried initially to obtain direction and guidance from people running local non-profits, but he received contradictory advice that he felt slowed his progress and orientation to the challenges of starting and building a non-profit:

That's probably the biggest reason why I lost respect for those peers, because they kept saying, 'be different.' Bottom line is that you can't be that much different. Your infrastructure needs to be the same and you report similar things as other non-profits. [...] *You have to understand that it's a competition out there and you have to dominate in your area to be given attention [emphasis added]. **(Benjamin, Initial Interview)***

Reflecting on his experiences, he identified the competitive nature of the non-profit sector was a challenge he discovered on his own. He clarified his need for time to orient himself to these business challenges. After 10 years, Benjamin highlighted that people began recognising his experience and started to approach him for his help and advice:

Through my tenth year in the not-for-profit community, people started coming to me, asking me for advice. With advice, people would benefit. I wouldn't get any return out of it, which is okay. But at least mention my organisation or show it support. *I got tired of giving away my experience and skills and not being rewarded from it, because it was my sacrifice and blood, sweat and tears* [emphasis added]. **(Benjamin, Initial Interview)**

He offered his help and expected people would show appreciation by giving back to his organisation. However, he identified an emerging realisation that people he helped would benefit his advice and experience, but not follow-through on plans or voluntarily give anything in return:

For a non-profit, they just want to be around you, they want your success. If you're helping them, teaching them, like how you did this and then they're going to apply to their area, their volunteer group, or organisation, and you quickly learn, 'oh, you were just using me'. *Initially it feels great and then time goes by and you realise they're not coming back. [...] They never follow through* [emphasis added]. **(Benjamin, Initial Interview)**

Benjamin indicated his feelings of frustration against the backdrop of these experiences, which subsequently lead him to start his for-profit business venture:

That's when I decided to start the business in digital marketing and consulting. I wanted to focus on non-profits, but it seems that I've been focusing more on for-profits. *That is the whole entrepreneurial spirit* [emphasis added]. **(Benjamin, Initial Interview)**

He expressed feeling that his skills were more appreciated with for-profit clients and that running his business was more straightforward:

You get treated differently, in a very good way. I don't have to tell my whole life story and sell you on me, and then when I don't walk away with anything I feel dejected. In the for-profit, I'm selling my services and my experience. Either you like it, or you don't, and that's it. But if you don't, that's not on me, it's on you. The challenges are not as difficult as the non-profit... Less gatekeepers and less of a need to sell your soul, if you will. **(Benjamin, Initial Interview)**

Benjamin's personal narrative of his development as an entrepreneur is highlighted in problems he faced in finding his own way, first in his non-profit and subsequently in his for-profit. In this way, his entrepreneurial development has been underpinned by his resolution of prominent barriers he faced while starting his ventures. Indeed, his experiences included a lack of guidance and support when starting his non-profit, but he later recognised this barrier in the non-profit community as an opportunity for his subsequent business venture.

5.5 Within-Diary Variation

During the diary study, subjective appraisals were repeated longitudinally (22 stages). These subjective measures were taken first as a baseline within the initial questionnaire, prior to the initial interview and diary research (Table 24).

Table 24. Baseline for repeated subjective performance appraisals (Case 2)

	Question	Short Name	Response
Repeated measures baseline	<i>'I am pleased with how my business is doing.'</i>	Business Progress	Strongly Agree
	<i>'The current context for my business is particularly challenging.'</i>	Challenging Business Context	Neutral
	<i>'My business faces a high degree of uncertainty.'</i>	Business Uncertainty	Disagree
	<i>'My business decision making tends to be rushed.'</i>	Rushed Business Decisions	Disagree
	<i>'I have accounted for the major issues facing my business.'</i>	Business Awareness	Agree
	<i>'My business feels out of control.'</i>	Business Control	Strongly Disagree
	<i>'I worry about my business failing.'</i>	Business Failure Worry	Strongly Agree
	<i>'I feel equipped to handle the challenges facing my business.'</i>	Equipped for Challenges	Agree
	<i>'My business makes me feel stressed.'</i>	Business-related Stress	Somewhat Disagree
Further Explanation		No response	

The diary study in this case lasted for 80 calendar days, with each stage representing approximately 4 calendar days.² An overview for all subjective measures and diary stages for this case are presented after the Chapter Summary, as displayed in Table 26.

5.5.1 Situation-specific Challenges

Benjamin reported specific challenges throughout the diary study phase of research (9 stages, 41%). These challenges emerged during the observation period and were primarily related to his appraisals and experiences of business-related stress, business factor awareness and worry about business failure (Section 5.5.2.2). Benjamin consistently highlighted progress to improve his organisational practices and find new sources of revenue (see Table 27). This aligned with explanations in his interviews pointing to his ‘multiple lines of income’, which extended to later realisation that he had developed different business models to support each other, but they were not ‘independently sustainable’. He reported different business challenges at each stage, with corresponding decisions and coping responses to avoid wasting time and prevent business revenue shortfalls. The overarching themes throughout this case show the connection between the challenges he reported, changes in his appraisals during the diary study and interviews was his concern about actions needed to facilitate business growth and extend the sales pipeline to ensure consistent revenue.

5.5.2 Dynamic Response Patterns

Benjamin’s response patterns for within-diary appraisals of subjective measures show a stable and positive perception of his ability to manage emerging business challenges. Stability classifications are grouped based on identifiable response pattern characteristics, including overall valence, degree of variation and frequency of divergences (Table 25). Subjective measures are presented based on the following stability classifications: Stable response patterns include minimal variation and infrequent divergences, while unstable patterns show high variation and intermittent or longstanding divergences.

² Days between diary entries calculated from Stage 2 to Stage 22; \bar{x} =3.81, min=3, max=8

Table 25. Grouping of within-diary response patterns (Case 2)

Benjamin (Case 2)		Valence	Divergence	Variation	Classification
					Stability
Group 1	Business Control (N)	Positive (1)	None (0)	None (0)	Stable (1)
	Business Uncertainty (N)	Positive (1)	None (0)	Minor (1)	Stable (2)
	Equipped for Business Challenges	Positive (1)	None (0)	High (2)	Stable (3)
Group 2	Business Progress	Positive (1)	Acute (1)	Minor (1)	Stable (5)
	Rushed Decision-making (N)	Positive (1)	Acute (1)	High (2)	Stable (6)
Group 3	Business-related Stress (N)	Positive (1)	Sporadic (3)	High (2)	Unstable (2)
	Challenging Business Context (N)	Mixed (4)	Sporadic (3)	High (2)	Unstable (2)
Group 4	Business Failure Worry (N)	Negative (2)	Longstanding (4)	High (2)	Unstable (6)
	Business Factors Awareness	Positive (1)	Longstanding (4)	High (2)	Unstable (6)

The response patterns for five subjective measures met Stable criteria. Two groups of stable measures were identified. The first group consisted of three appraisals: Business Control, Uncertainty and Equipped for Challenges. Only minor variations and no divergences were evident on these measures regardless of reported challenges. Explanations for stability on these measures were available primarily through interviews. The second group consisted of two measures: Business Progress and Rushed Decisions. These appraisals had an overall positive valence during the diary study. Despite high continuity, minor variations were evident with acute divergences to negative appraisals.

The response patterns for four subjective measures met Unstable criteria (Section 5.2.2. Unstable Response Patterns). Two groups of unstable measures were identified. The third group consisted of three measures with multiple fluctuations: Stress and Challenging Context. The fourth group consisted of two measures with a longstanding change in his appraisals: Factor Awareness and Failure Worry. Frequent divergences corresponded with specific challenges that Benjamin faced during the diary study and helped explain these measures.

5.5.2.1 Stable Response Patterns

Dynamic response patterns for seven subjective measures were classified as Stable during the diary study.

(1) No divergence

The first group consisted of three Stable measures with consistently positive valence during the diary study, regardless of reported challenges: Control, Uncertainty and Equipped Challenges. Explanations for stability on these measures were available primarily through his interviews.

(a) Business Control

Benjamin's positive ($f=22$, 100%) appraisals of business control were represented by his consistent *disagreement* with the statement, 'My business feels out of control' (Figure 24). The overall continuity on this measure indicated his stable perception of business control. This dynamic response pattern indicated his perceptions were not affected by challenges he reported.

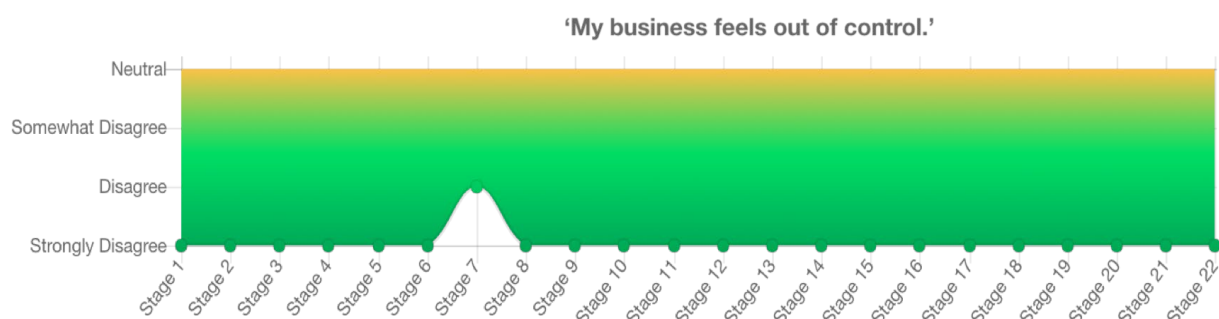


Figure 24. Appraisals of business control (Case 2)

Explanations were available primarily through his qualitative interviews. For example, in his initial interview, Benjamin expressed his perception of business control through his personal ability to manage time and focus on his goals:

Protecting my time and my psyche, staying in a routine, and being accountable, that's really kept me focused on creating the developments I needed. **(Benjamin, Initial Interview)**

Through his personal ability, he indicated his control over setting limits for the business:

Running a business is like, you set limits of what you can and cannot do. **(Benjamin, Final Interview)**

He suggested that gaining control over his business linked with his ability to identify *personal* ‘weaknesses’:

It’s just figuring out where our weaknesses are for all my partners and decreasing them. We can’t ever remove them, they always will be there. But how can we all move in the same direction to help one another out.

(Benjamin, Final Interview)

Benjamin shared his perception of personal capabilities and limits during the diary study and interviews. He also highlighted alignment between his self-awareness and his ongoing efforts to sustain and improve organisational practices, expanded further under Equipped for Challenges. Challenges that Benjamin faced during the diary study did not impact his normative perception of business control. In this regard, his appraisals aligned with a long-term view of his personal and business trajectory, not with the acute challenges that he needed to address during the diary study.

(b) Business Uncertainty

Benjamin’s overall positive ($f=22$, 100%) appraisals were represented by his consistent *disagreement* with the statement, ‘My business faces a high degree of uncertainty’ (Figure 25). Continuity on this measure confirmed his stable perception of business uncertainty.



Figure 25. Appraisals of business uncertainty (Case 2)

This stability indicated a minimal connection between the challenges he reported and his perceptions of uncertainty. In his initial interview, Benjamin indicated he felt uncertain about business practices and how best to grow his business:

Every day I'm figuring out the goal or sometimes what keeps me up at night is not knowing what is working. Because you have the idea of 'this works', but it's not really working, I'm just doing it. There are things we are going to do and lose money on, and that's just the bottom line, but does it pay the bills in other ways and give us the exposure we need?
(Benjamin, Initial Interview)

Benjamin's appraisals of business uncertainty at this stage in his business became evident through his efforts to identify and improve aspects of his business which were financially counter-productive. In this sense, he indicated that his business uncertainty was not primarily an external-orientation towards uncertainty. Concerns about business practices connected to his efforts to increase business efficiency and incrementally replace incorrect knowledge.

(c) Equipped for Business Challenges

Benjamin's positive ($f=19$, 86%) appraisals on this measure were represented by his consistent *agreement* with the statement, '*I feel equipped to handle the challenges facing my business*' (Figure 26). During the diary study, minor fluctuations to neutral ($f=3$) indicated situations when Benjamin expressed less confidence in his ability to handle business challenges. Overall, continuity indicated stable perceptions.

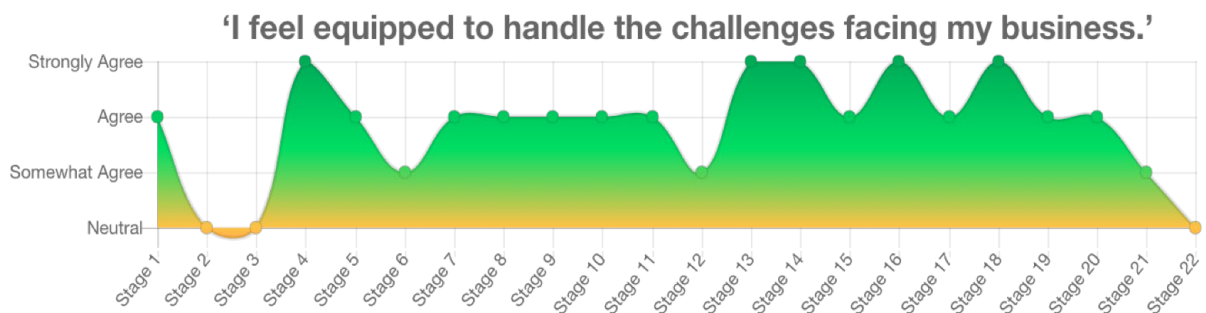


Figure 26. Appraisals of feeling equipped to handle challenges (Case 2)

Explanations were available primarily through interviews. Benjamin acknowledged the emerging challenges facing his business during the diary study (see Table 27) and indicated short-term doubts in his ability to handle business challenges.

Drawing on relevant past experience

In his initial interview, Benjamin indicated that his previous work experience in the non-profit had transferred to his business. He considered his personal capabilities compared to earlier entrepreneurial experiences with his non-profit:

One of the things I really didn't understand is that I'd be the face of my organisation, regardless of the scenario. You're responsible for creating new relationships and maintaining them. **(Benjamin, Initial Interview)**

He shared how early experiences interconnected with development of business skills:

My skills weren't polished. I was a little scared to talk to people. [...] My skills of talking to people got a lot more polished. **(Benjamin, Initial Interview)**

He recognised the importance of this development in his entrepreneurial journey:

What's revealed is that you're actually stronger than what you realise. *Being an entrepreneur is probably the best self-help prescription you can give to yourself* [emphasis added]. You're stronger, because the only thing that stops you is your fear. That's the only thing that is your limit. **(Benjamin, Initial Interview)**

Benjamin noted that working resolving personal limits was crucial for business progress. He did not indicate dependence on external guidance to learn new practices in his business.

Coping with personal limitations

In his final interview, Benjamin made it clear that this took him time to develop, despite his self-identified personal characteristics and preferences:

I'm a systems guy. I'm also an introverted extrovert. Even though I like to keep to myself, I understand that I have to get out there and meet new people. *I had to realise people are not going to come to me. I have to go to them* [emphasis added]. **(Benjamin, Final Interview)**

In this way, his self-development was about balancing between what his company needed of him and his normal range of preferences.

Adapting priorities to changing reality

He identified that in growing his business, he needed to step outside his comfort zone and develop himself personally. Furthermore, Benjamin indicated his use of this awareness of personal limits to set boundaries for his business practice:

This has allowed me to look at myself and see what are my weaknesses that I have now shared with the business, which I've now shared to my partner, and I share with my other partners, and I can't have that same weakness. It showed me that it might be an insecurity that I can't afford to have. **(Benjamin, Final Interview)**

He expressed this that he had become aware during the diary study of personal limits that had been impacting his business and relationships. In this case, Benjamin's understanding of personal limits served a practical purpose for managing his business.

(2) Acute divergence

The second group consisted of two stable measures: Business Progress and Rushed decisions. These measures consisted of minor variations and acute divergence to negative appraisals that corresponded with specific challenges.

(d) Business Progress

Benjamin's positive ($f=21$, 95%) appraisals of business progress were represented by *agreement* with the statement, *'I'm pleased with how my business is doing'* (Figure 27). Minor variations were evident including one acute, negative divergence at Stage 21. Overall continuity indicated a stable perception of his progress.

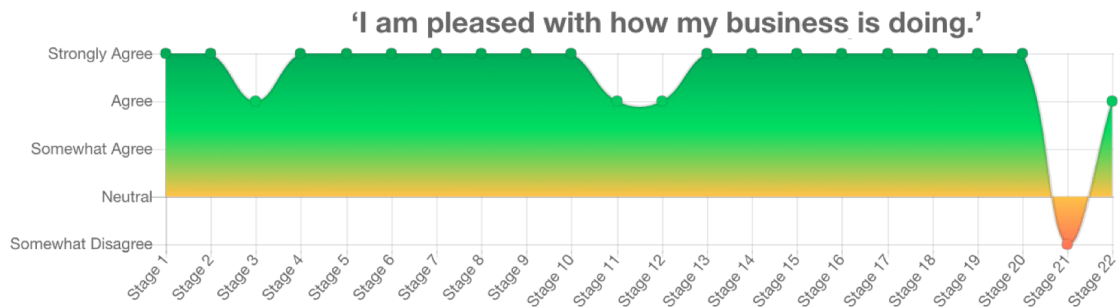


Figure 27. Appraisals of business progress (Case 2)

Benjamin did not specify any challenge with this negative divergence at **Stage 21**. Rather, he provided further explanation: “This is a great time to reflect on this.” At this stage, he also provided a negative appraisal of Factors Awareness, an unstable measure that shifted to negative at the end of the observational period. This indicated his changing awareness of business factors temporarily impacted his view of business performance. During his interviews, Benjamin expressed ongoing concern with his business practices:

Every day I’m figuring out the goal or sometimes what keeps me up at night is not knowing what is working. *Because you have the idea of ‘this works’, but it’s not really working, I’m just doing it* [emphasis added]. There are things we are going to do and lose money on, and that’s just the bottom line, but does it pay the bills in other ways and give us the exposure we need?
(Benjamin, Initial Interview)

Benjamin focused on available cash (bank account) and cashflow (pipeline) as two measures to understand whether his business practices were effective:

Our bank account and our pipeline. **(Benjamin, Initial Interview)**

His attention on gaining new business (client acquisition) to ensure regular revenue:

Prospecting never stops. Meeting new people never stops. In order to get a certain job, just by the sheer numbers of the equation you have to meet so many people. **(Benjamin, Initial Interview)**

His focus on these measures highlighted that delays and inconsistencies in receiving payment made it difficult for him to assess effectiveness of his business practices:

It's painful to not see the results you want to see immediately, but when we get that check to come, it's worth it. It's good to have a check come in every other week versus once a month. So, you want to make sure you get those checks coming in because that shows you're doing the right thing. A little bit more sporadic and it gets hard. **(Benjamin, Initial Interview)**

In his final interview, Benjamin expressed his continued focus on building a sustainable pipeline for his business:

Really the main source of making sure my bills are paid or the financial aspects is ensuring that I have a good pipeline of people that I know that can refer business to me. **(Benjamin, Final Interview)**

Similarly, he expressed a view that performance targets connected to personal limits:

That's all part of understanding that, one, there is no finish line and two, if you don't disrupt yourself someone else will [emphasis added]. You have to be vulnerable and open, willing to look at questions from a different lens and be transparent or authentic enough to ask yourself, "So why aren't you there?" From there, it's not a business issue, it's a personal issue. **(Benjamin, Final Interview)**

In this regard, Benjamin's concerns about business practices and how best to move the business forward remained consistent throughout the diary study:

A lot has changed. It's just growing the business... how to grow the business, how to scale, how to increase your efforts through duplication, and then, of course, how to optimise what works and get rid of what doesn't. *We've gone through a couple of iterations of figuring out what to do and how those systems should look like to keep us at optimal speed [emphasis added].* **(Benjamin, Final Interview)**

He evaluated the changes related to his efforts to incrementally improve efficiency in his business and replace incorrect knowledge. Benjamin also indicated that his sense of satisfaction was conditional on reaching his financial targets:

I like how my business is going today because we've made it to another day, but I don't like it for the fact that I'm not at my 10k a month. We're close but not there. *A lot of it is overcoming the fear of asking people instead of giving things away for free* [emphasis added]. **(Benjamin, Final Interview)**

He highlighted improvements that were made, but he also recognised personal limits shared with his business. Thus, Benjamin adapted his business practices and goals for business performances to his self-awareness, knowledge and personal abilities.

(e) Rushed Decisions

Benjamin's overall positive ($f=20$, 91%) appraisals of rushed business decisions were represented by his *disagreement* with the statement, 'My business decision making tends to be rushed' (Figure 28). Negative divergences at Stages 3 and 13 indicated situations when Benjamin felt rushed to make decisions. The continuity of his appraisals indicated his stable perception of making rushed business decisions.

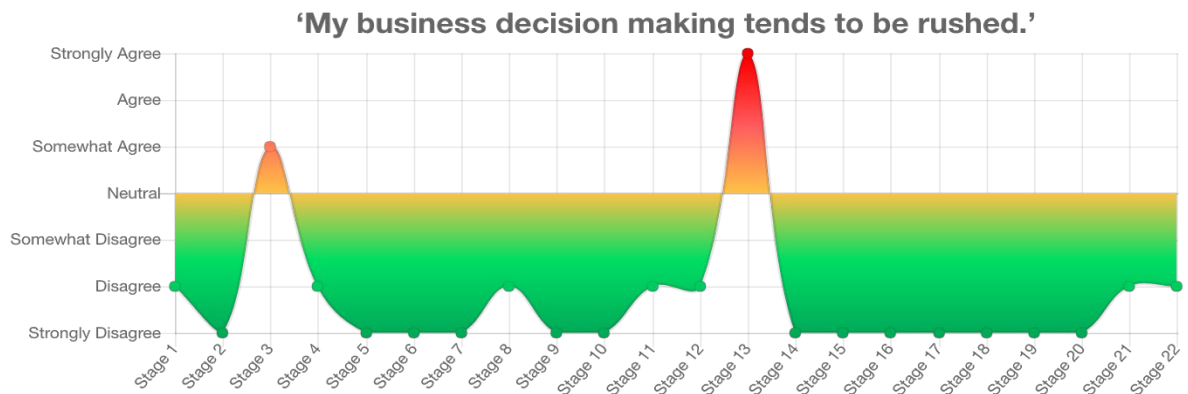


Figure 28. Appraisals of rushed business decisions (Case 2)

These divergences at Stages 3 and 13 each had challenges related to Benjamin's efforts in improving business practices, as reported under Factor Awareness. In his initial interview, Benjamin noted internal barriers to performance goals:

There's two of us, so there's only so many jobs we can do in a month, because we only have so much time. **(Benjamin, Initial Interview)**

He indicated this as a continuous impact on his business, which he observed as limiting how many projects were possible to complete in a given timeframe:

We had to figure out what can we do in the amount of time that we have because there are only 24 hours in a day. (**Benjamin, Initial Interview**)

In his final interview, Benjamin maintained his concern with using time poorly:

Understanding that there is only 24 hours in the day... if I don't use my time wisely and if I spend it too much... (**Benjamin, Final Interview**)

His awareness and concern about **Time Constraints** emerged as an underlying factor that explained Benjamin's ongoing efforts to improve business practices. The challenges presented at Stages 3 and 13 associated with changes he needed to make.

5.5.2.2 Unstable Response Patterns

The response patterns for four subjective measures were classified as Unstable during the diary study. This classification was due to a low continuity in valence and high variations in his appraisals, including multiple negative divergences.

(3) Sporadic Divergences

This third group consisted of two measures: Business-related Stress and Challenging Business Context. The multiple negative divergences in these appraisals were connected with specific challenges that Benjamin faced.

(f) Business-related Stress

Benjamin provided overall positive ($f=15$, 68%), but unstable appraisals of business-related stress. This was represented by his *disagreement* with the statement, 'My business makes me feel stressed' (Figure 29). His appraisals until Stage 16 fluctuated intermittently to negative ($f=5$, 22%) and neutral ($f=3$, 13%) for most of the study. This lack of continuity indicated his unstable perception of his business stress.



Figure 29. Appraisals of business stress (Case 2)

The following stages each had negative or neutral appraisals and reported challenges:

- Financial concerns. **(Stage 2)**
- Infrastructure on roles. **(Stage 3)**
- No challenge reported. **(Stage 5)**
- How to scale by a different method of prospecting. **(Stage 7)**
- Balancing life. It's spring break. **(Stage 10)**
- I'm learning to have our own server via Amazon. **(Stage 13)**
- Time **(Stage 22)**

At **Stage 2**, his challenge regarded his financial concerns, “Not having enough positive cash flow.” In response to this challenge, his decision was to “Trust the process,” as he anticipated future revenue, “New business is potentially coming through.” He provided no further explanation. At this stage, he responded with negative appraisals of Stress, Failure Worry and Challenging Context. His positive appraisals of Control, Uncertainty, and Progress.

At **Stage 7**, Benjamin presented a challenge of resolving a future-oriented questions about scaling his business. In response to this challenge, his decision was to recruit additional support, “Using an intern.” His anticipated outcome was that his actions would facilitate business growth, “Growth but more clarity of our pipeline,” but he did not offer a further explanation. At this stage, he provided negative appraisals of Stress and Failure Worry, while the remaining measures had positive appraisals.

At **Stage 10**, Benjamin specified a challenge when taking care of his children, “Balancing life. It’s spring break.” His decision in response to this challenge was,

“Focus on the high priorities and time sensitive items.” He reported his anticipated outcome, “I’ll get better and forcing me to be better. Make everything count.” He again provided a negative appraisal of Failure Worry. In his final interview, explained this challenge further as finding work-life balance when taking care of up to six children:

[...] my household goes from three to eight. Everything gets slowed down. **(Benjamin, Final Interview)**

He indicated his worry related to declines in his business that might result:

I want to fight every day. If my kids come over I’m like, ‘oh man, I’m stressed, I’m out of my routine, I’m not getting my stuff done’, because I know if I don’t do what I’m supposed to do today, someone else might come in and take my job. That means that’s one less job, one less client for my company to have. **(Benjamin, Final Interview)**

This challenge connected to the impacts from family responsibilities on his personal and business performance. He reported feelings of stress from being less involved with his business, in addition to worry that his business might be disadvantaged. His responses were directed towards setting priorities and ensuring time was well-spent.

In his initial interview, Benjamin expressed that his frequent concern was about the pipeline of work for this business:

I know I’m doing a lot, but I don’t have any other choice not to because there’s no way to get attention. No-one is coming to you... you have to go to them. I have to do everything I can to get people to notice and it’s a lot of work. **(Benjamin, Initial Interview)**

While he indicated his concern about the risk of revenue shortfalls, he also indicated coping with uncertainty:

Sometimes I say, “what the hell am I doing?”. [Business author] has a saying, “trust the process.” It’s hard. **(Benjamin, Initial Interview)**

Benjamin recognised that facing an ambiguous challenge in his business required effort to suppress worry and refocus on positive responses.

In his final interview, Benjamin expressed his challenge of staying balanced personally while running his business:

I don't truly believe you can have a healthy balance that's going to be the right formula if I don't stay in tune with what's going on today by being attentive, being aware, getting up early, making sure I take care of my personal needs, and then my business needs. [emphasis added]

(Benjamin, Final Interview)

He explained how stress related to maintaining his level of attention and involvement:

I get really stressed out because I feel like... almost suffocating. My business is a kid and it's like a newborn baby. [...] You have to attend to it every day. There are no days off. Even for just a little bit, I have to attend to it. **(Benjamin, Final Interview)**

Although he highlighted more specifically that his ongoing concern was about preventing business revenue shortfalls:

I start to get stressed because I can make [money], but if I don't have a pipeline next month. I'm like, "oh crap!" If I don't make that money I'm going to fail. **(Benjamin, Final Interview)**

Appraisals of stress during the diary study corresponded with his attention to the risk of business revenue shortfalls. Additionally, his attention to these challenges and resulting range of decisions also required coping responses. Consequently, orientation to direct action helped to reduce the risk of negative effects (overload, conflict, negative attitudes) on himself (feelings, performance, life outside work) and his business (revenue shortfalls).

(g) Challenging Business Context

Benjamin presented *mixed* appraisals in response to the statement, *'The current context for my business is particularly challenging'* (Figure 30). His appraisals were initially negative ($f=4$, 31%) and then shifted to positive ($f=4$, 31%) and neutral ($f=5$, 38%) in subsequent stages. He provided only one appraisal on this measure after Stage

12, resulting in missing ($f=9$, 40%) longitudinal data. Overall continuity indicated unstable perceptions.

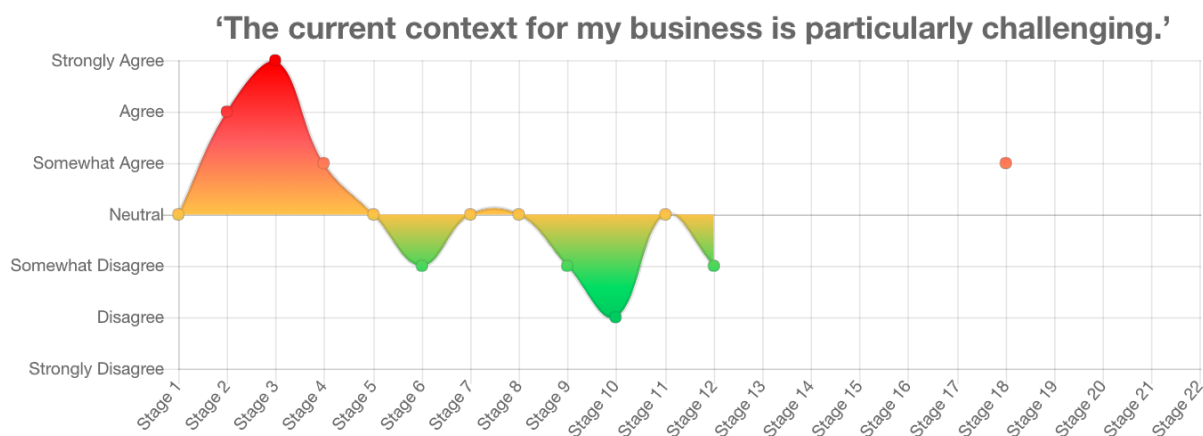


Figure 30. Appraisals of challenging business context (Case 2)

Explanations were available primarily through his interviews. In his initial interview, Benjamin shared his consideration that finding examples of ‘healthy’ entrepreneurs was difficult within his local business context:

At least locally, we’re really deprived of a healthy set of people who have started companies that have been successful. **(Benjamin, Initial Interview)**

In his final interview, he shared his view that this difficulty could be attributed to the focus of economic development efforts in local government:

There’s so much of an emphasis on importing big companies versus helping and fostering an environment for start-ups. **(Benjamin, Final Interview)**

He clarified his perspective that economic development efforts were aimed at enticing large, high technology firms rather than supporting the start-up community:

[...] haven’t brought true diversity of thought to question how we can bring in different types of industries and grow not just one type, but also growing a start-up community to where we can support the small business community. **(Benjamin, Final Interview)**

He stated his view that a focus of attracting large firms was not aligned with needs of the small business community. However, the opportunity he recognised for his for-profit was aligned with his perception of challenging business context and his own entrepreneurial experiences (see 5.4 Catalyst for Change), such as difficulty obtaining direction and guidance.

(4) Longstanding Divergences

This fourth group consisted of two measures: Factors Awareness and Failure Worry. These measures had high variation and a longstanding change in his appraisals. This reason for this change was evident final interview.

(h) Business Factors Awareness

Benjamin's overall positive ($f=14$, 64%) appraisals were represented by *agreement* with the statement, 'I have accounted for the major issues facing my business' (Figure 31). His appraisals fluctuated to negative ($f=8$, 36%) at multiple stages, but shifted primarily to negative after Stage 17. This lack of continuity in his appraisals indicated an unstable perception of major issues facing his business.

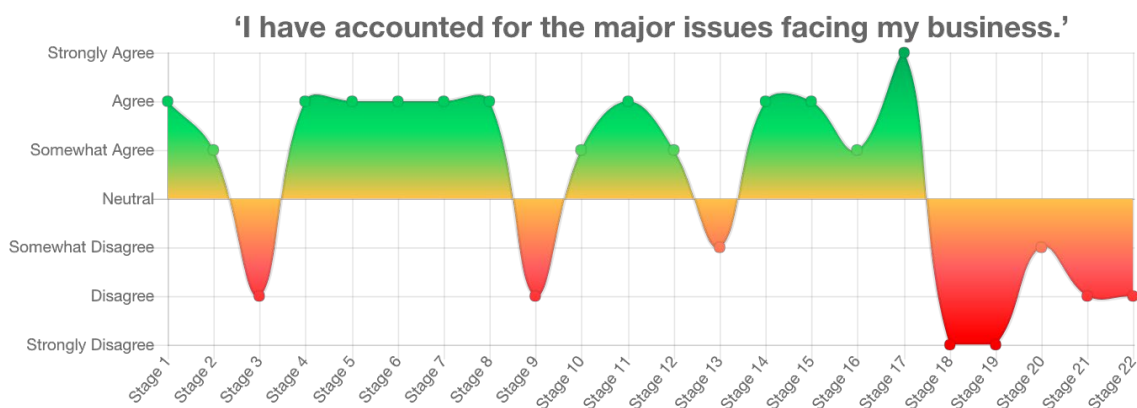


Figure 31. Appraisals of major issues facing business (Case 2)

This response pattern indicated changes in his perception, but explanations were available primarily through his interviews. The following stages each had negative appraisals and a reported challenge:

- Clarifying roles between himself and his business partner. **(Stage 3)**
- Recent mistakes with his non-profit event. **(Stage 9)**
- Learning a new technical service. **(Stage 13)**
- Time **(Stage 22)**

At **Stage 3**, he reported a challenge of clarifying roles with his business partner. He noted his decision, “Continue on vision,” and anticipated outcome, “Improvement. More clarity for sure and, so far, it's been great,” but no further explanation. He provided positive appraisals of Business Control, Uncertainty, Progress and negative appraisals of all four unstable measures (see Section 5.2.2). This challenge regarded his efforts to make practical improvements with his business partner.

At **Stage 9**, this challenge related to recent mistakes with his non-profit event. He reported his decision, “Address what can be addressed,” and anticipated outcome, “Little to no negative consequences.” He provided further explanation, “This is a good confidence builder.” This stage corresponded with negative appraisals of Failure Worry and Factors Awareness, but his remaining appraisals were positive. Benjamin’s response indicated both infrequent duration and minimal anticipated impact from this challenge.

At **Stage 13**, his challenge of learning a new technical service. His decision to engage in this effort was to support business growth: “Because of growth this is a necessary next step.” He anticipated outcomes for himself, “Lots of learning,” but did not offer any further explanation. He also provided negative appraisals on Factors Awareness and, as reported under Stress, his efforts at this stage subsequently connected to his experience of a temporary setback at Stage 16.

At **Stage 16**, he specified his challenge as a temporary setback to ‘scaling’ business growth with ‘applications and server’. His decision was to act to resolve the challenge: “We just had to fix it with a bunch of time and money.” He reported his anticipated outcome still aligned with his original: “More customers.” His appraisals of failure worry were negative on prior to this stage, but all of his appraisals were positive at this stage. He indicated he had been able to reduce the impact of this challenge by responding quickly and making necessary adjustments.

At **Stage 22**, he considered a challenge related to Time, following a longstanding negative shift in his appraisals. He indicated a decision to improve his self-awareness and identify business priorities, “Be more self-aware and look at the most expensive vortexes.” His anticipated outcome, “Less stress,” indicated the priority for his effort. This stage corresponded with negative appraisals of Failure Worry and Factors Awareness and neutral appraisals of Equipped for Challenge and Stress.

In his final interview, Benjamin stated his concern for missing information about major factors that might be affecting his business:

I don’t want to overlook because I believe we are given everything we need right here in front of us to be successful. I don’t want to overlook anything because if so my business will fail. **(Benjamin, Final Interview)**

While indicating uncertainty and risk factors extending beyond his initial abilities and comfort zone, Benjamin’s entrepreneurial orientation can be seen in his willingness to build proactively from his passion to pursue his for-profit venture (see 5.3 Entrepreneurial orientation).

(i) Business Failure Worry

Benjamin’s overall negative ($f=15$, 68%) appraisals were represented by agreement with the statement, ‘My business faces a high degree of uncertainty’ (Figure 32). His appraisals were consistently negative until Stage 10, followed by intermittent fluctuations between negative and positive ($f=6$, 27%) for the remainder of the diary study. This lack of continuity in his appraisals indicated a generally unstable perception of worry about his business failing.

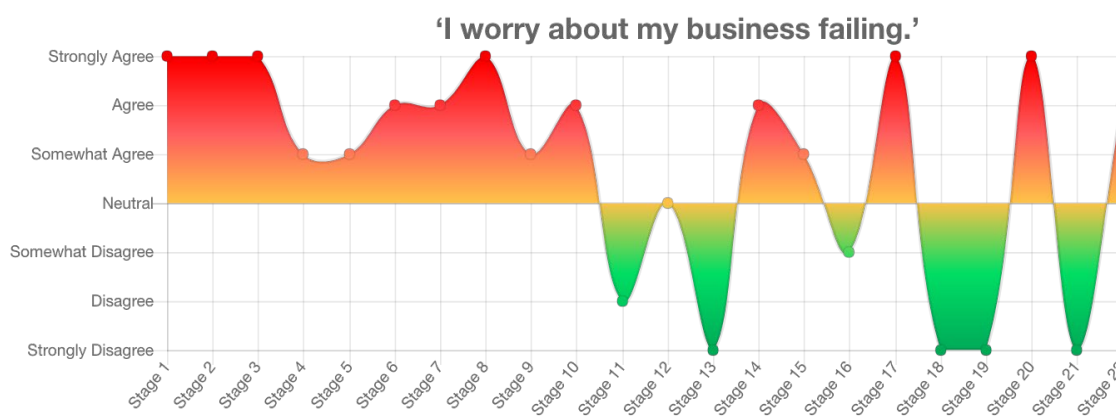


Figure 32. Appraisals of business failure worry (Case 2)

Explanations were available through his diary accounts while his general views were available in his interviews.

At **Stage 6**, her provided no specific challenge, but instead provided further explanation for his perception of worry as a longstanding experience:

I believe every day is challenging. There's no one day that makes me feel that I'm no longer in need of worry. **(Stage 6)**

He considered business challenges more generally in relation to his sense of worry. This indicated his appraisals of worry had preceded the diary study observational period.

At **Stage 12**, Benjamin specified a challenge, “[...] getting leads and bringing in income,” and decision in response to, “[...] explore more lead generating methods.” He reported his anticipated outcome: “I am hoping that by finding a new lead generating method and implementing it, I will have more leads which convert to customers.” He provided positive appraisals on all measures, except for a neutral appraisal of Failure Worry.

In his initial interview, Benjamin foregrounded his view of failure as an interconnected and unavoidable quality of the entrepreneurial process:

That’s probably the biggest thing: You’re going to fail. The saying is, “fail fast and fail often,” but when you fail, you’re always moving forward, and a failure is not a defeat, it’s just a process to adapt to what you never thought existed. But keep moving forward and don’t stay down. **(Benjamin, Initial Interview)**

According to Benjamin, opportunity could exist within fast failures to incrementally replace incorrect knowledge and build ‘more richness’ into the experience of entrepreneurship:

I think that’s what failure does, everyone hates failing, but the results are better than what they were if you succeeded; there’s more richness and things to work on and work with them. **(Benjamin, Initial Interview)**

He highlighted that keeping a balanced perspective of the overall process of starting a business helped him to not concentrate on particular setbacks along the journey:

You have to say, “I may fail but I’ll succeed no matter what” and that’s just having a strategy that once you believe in the process the results will come. **(Benjamin, Initial Interview)**

In this way, Benjamin communicated his view that learning about himself was important for overcoming the impacts of failure to adapt what he learns into positive business development.

5.6 Chapter Summary

Benjamin’s early experiences of unsupportive responses and contradictory advice slowed his initial progress and orientation to the entrepreneurial challenges facing his business. Despite multiple examples of negative experiences from unreliable or untrustworthy people, he stayed committed to his endeavour and found ways to be more self-reliant, deliberate with his time and assertive with others. His involvement in his community was evident in his initial interview as he continued to give his time and energy to support people in his local community through his non-profit and teaching business at a community college. It was not until he felt others were benefiting from his ‘hard earned’ expertise, but not giving him recognition or support in return that he decided to start his business as a consultancy. His sense of involvement in his community was evident in his initial interview and remained consistent for the duration of the study, but his sense of satisfaction was impacted by his many negative experiences. Regardless, Benjamin learned to be self-reliant, deliberate and assertive and this was also evident in his interviews and diary accounts as his efforts to be conscientious in personal and business practices. During the diary study, his appraisals, decisions and actions were growth-oriented, and connected most reliably to the new challenges he faced during the diary study.

Table 26. Diary study longitudinal measures of subjective assessments (Case 2)

	Stages	Business Challenges	Business Progress	Challenging Business Context (R)	Business Uncertainty (R)	Rushed Decisions (R)	Business Factors Awareness	Business Control (R)	Business Failure Worry (R)	Equipped for Challenges	Business-related Stress (R)
Baseline	Stage 1		Strongly Agree	Neutral	Disagree	Disagree	Agree	Strongly Disagree	Strongly Agree	Agree	Somewhat Disagree
Repeat Measures	Stage 2	Yes	Strongly Agree	Agree	Strongly Disagree	Strongly Disagree	Somewhat Agree	Strongly Disagree	Strongly Agree	Neutral	Agree
	Stage 3	Yes	Agree	Strongly Agree	Somewhat Disagree	Somewhat Agree	Disagree	Strongly Disagree	Strongly Agree	Neutral	Somewhat Agree
	Stage 4	No	Strongly Agree	Somewhat Agree	Strongly Disagree	Disagree	Agree	Strongly Disagree	Somewhat Agree	Neutral	Disagree
	Stage 5	No	Strongly Agree	Neutral	Strongly Disagree	Strongly Disagree	Agree	Strongly Disagree	Somewhat Agree	Agree	Agree
	Stage 6	No	Strongly Agree	Somewhat Disagree	Strongly Disagree	Strongly Disagree	Agree	Strongly Disagree	Agree	Somewhat Agree	Disagree
	Stage 7	Yes	Strongly Agree	Neutral	Strongly Disagree	Strongly Disagree	Agree	Disagree	Agree	Agree	Agree
	Stage 8	No	Strongly Agree	Neutral	Strongly Disagree	Disagree	Agree	Strongly Disagree	Strongly Agree	Agree	Strongly Disagree
	Stage 9	Yes	Strongly Agree	Somewhat Disagree	Strongly Disagree	Strongly Disagree	Disagree	Strongly Disagree	Somewhat Agree	Agree	Strongly Disagree
	Stage 10	Yes	Strongly Agree	Disagree	Strongly Disagree	Strongly Disagree	Somewhat Agree	Strongly Disagree	Agree	Agree	Neutral
	Stage 11	No	Agree	Neutral	Strongly Disagree	Disagree	Agree	Strongly Disagree	Disagree	Agree	Disagree
	Stage 12	Yes	Agree	Somewhat Disagree	Somewhat Disagree	Disagree	Somewhat Agree	Strongly Disagree	Neutral	Somewhat Agree	Somewhat Disagree
	Stage 13	Yes	Strongly Agree	No Opinion	Strongly Disagree	Strongly Agree	Somewhat Disagree	Strongly Disagree	Strongly Disagree	Strongly Agree	Somewhat Agree
	Stage 14	No	Strongly Agree	No Opinion	Strongly Disagree	Strongly Disagree	Agree	Strongly Disagree	Agree	Strongly Agree	Strongly Disagree
	Stage 15	No	Strongly Agree	No Opinion	Strongly Disagree	Strongly Disagree	Agree	Strongly Disagree	Somewhat Agree	Agree	Neutral
	Stage 16	Yes	Strongly Agree	No Opinion	Strongly Disagree	Strongly Disagree	Somewhat Agree	Strongly Disagree	Somewhat Disagree	Strongly Agree	Strongly Disagree
	Stage 17	No	Strongly Agree	No Opinion	Strongly Disagree	Strongly Disagree	Strongly Agree	Strongly Disagree	Strongly Agree	Agree	Strongly Disagree
	Stage 18	No	Strongly Agree	Somewhat Agree	Strongly Disagree	Strongly Disagree	Strongly Disagree	Strongly Disagree	Strongly Disagree	Strongly Agree	Strongly Disagree
	Stage 19	No	Strongly Agree	No Opinion	Strongly Disagree	Strongly Disagree	Strongly Disagree	Strongly Disagree	Strongly Disagree	Agree	Strongly Disagree
	Stage 20	No	Strongly Agree	No Opinion	Strongly Disagree	Strongly Disagree	Somewhat Disagree	Strongly Disagree	Strongly Agree	Agree	Strongly Disagree
	Stage 21	No	Somewhat Disagree	No Opinion	Strongly Disagree	Disagree	Disagree	Strongly Disagree	Strongly Disagree	Somewhat Agree	Strongly Disagree
	Stage 22	Yes	Agree	No Opinion	Disagree	Disagree	Disagree	Strongly Disagree	Agree	Neutral	Neutral

Table 27. Business challenges by longitudinal stage (Case 2)

	Stages	Business Challenges	Challenges Addressed	Business Decisions	Anticipated Outcomes	Further Explanation	
Repeat Measures	Stage 2	Yes	Not having enough positive cash flow.	Trust the process.	New business is potentially coming through.		
	Stage 3	Yes	Infrastructure on roles.	Continue on the vision.	Improvement. More clarity for sure and so far it's been great.		
	Stage 4	No					
	Stage 5	No	I believe everyday is challenging. There's no one day that makes me feel that I'm no longer in need of worry.				
	Stage 6	No					
	Stage 7	Yes	How to scale by a different method of prospecting.	Using an intern.	Growth but more clarity of our pipeline.		
	Stage 8	No					
	Stage 9	Yes	My nonprofit's event had messed up some logistical details.	Address what can be addressed.	Little to no negative consequences.	This is a good confidence builder.	
	Stage 10	Yes	Balancing life. It's spring break.	Focus on the high priorities and time sensitive items.	I'll get better and forcing me to be better. Make everything count.		
	Stage 11	No					
	Stage 12	Yes	I have been faced with the challenge of getting leads and bringing in income.	I have decided to explore more lead generating methods.	I'm hoping that by finding a new lead generating method and implement it I will have more leads which convert to customers.		
	Stage 13	Yes	I'm learning to have our own server via Amazon.	Because of growth this is a necessary next step.	Lots of learning.		
	Stage 14	No					
	Stage 15	No					
	Stage 16	Yes	Scaling and growth with applications and server.	We just had to fix it with a bunch of time and money.	More customers.		
	Stage 17	No					
	Stage 18	No					
	Stage 19	No					
	Stage 20	No					
	Stage 21	No				This is a great time to reflect on this. Thanks!	
	Stage 22	Yes	Time	Be more self aware and look at the most (expensive vortexes).	Less stress.		

CHAPTER 6: CASE STUDY 3 (RICHARD)

6.1 Introduction

Individual-level longitudinal results and within-case analyses are presented in this chapter for ‘Richard’. These results and analyses draw on the full range of empirical data available, including the pre-diary (initial) questionnaire and qualitative interview, diary study (18 stages) and post-diary (final) qualitative interview. Data from each of these sources have been analysed inductively, as outlined under 3.6 Data Analysis Methods.

6.2 Personal Background

Richard is a sole proprietor and founder of his company specialising in software research and development. He is a British white male in his late twenties living in a large city in Southwest England (United Kingdom). He has completed postgraduate (masters) education in technology and humanities. He has ten years of experience as a software developer, including employment and freelance contracting. He also has been employed for four years as a research assistant at a University, also in Southwest England. Richard has no substantive education in business and did not intend to become an entrepreneur. Following an unexpected change in his employment less than a year prior, he has been motivated to achieve greater financial stability and self-reliance. By the time of his initial interview, Richard had been working full-time for two months in his first entrepreneurial venture. As a sole proprietor, Richard has a high personal stake in the success of his business and is actively involved in day-to-day business decisions, as seen in Table 28.

Table 28. Personal characteristics (Case 3)

	Question	Response
Selection Criteria	Active in Starting Company	Yes
	Tech Startup Perception	Yes
Active Involvement	Personal Stake	Strongly Agree
	Business Decisions	Strongly Agree
	Operations	Strongly Agree
Busines Information	Primary Industry	Prototyping, research and development
	Specialist Technology	Yes - tools and codebases that are reused to deliver prototypes
	Outside Country of Residence	No
	Country of Residence	United Kingdom
	Industry Experience	10 years
	Active in Business	0 years
	Hours per week of work	40
	Current Company Role	Founder/Co-founder
	Co-founder/Business Partner	No
	Personal Information	Gender
Age		20 - 29
Spouse/Partner		Not at this time (single, divorced, etc)
Education Level		Postgraduate Degree / Masters
Masters Subject Area		Technology, Humanities

6.3 Entrepreneurial orientation

In his initial questionnaire, Richard associated with the lifestyle and freedom of being an ‘entrepreneur’ (Table 29).

Table 29. Baseline for subjective appraisals of entrepreneurship (Case 3)

	Question	Response
Baseline perceptions	In general, what comes to mind when you think of 'Entrepreneurship'?	Building a business to create a lifestyle for yourself
	What comes to mind when you think of being an 'Entrepreneur'?	Freedom to choose work, in charge of my own destiny.

Richard does not have an education or prior experience in business, nor did he intend to become an entrepreneur. He presented his motivation for entrepreneurship as about pursuing personal development and freedom in choosing his own work:

I'm going down this commercial route, which seems to be the best thing for me because I have independence to choose what I want to do.

(Richard, Initial Interview)

Richard indicated his desire to gain independence and self-reliance in his work. He stated that 'entrepreneurship' was also about improving his future lifestyle, but expressed his short-term goals were to achieve a sense of financial stability:

My first goal in the short-term is to be established and have enough income that I don't have to worry about if an invoice hasn't come in or if I'm going to be able to pay myself. That's the short term.

(Richard, Initial Interview)

He highlighted his deliberate efforts to limit risks he identified in starting a business:

I'm not just jumping off a cliff at the end of the day. [...] I made sure to do all the research and the effort was done beforehand. **(Richard,**

Initial Interview)

Richard suggested that his prior experiences, knowledge and personal abilities might be adequate preparation for his entrepreneurial journey (see Equipped for Business Challenges):

I'll pull that experience in and use the same workflows, but adapt things to how I want to do them. I can make those changes and go from there.

(Richard, Initial Interview)

However, after two months of working full-time in his business, he started to recognise a range of novel experiences since starting in his business:

Very early at getting settled into things. Getting used to chasing people for invoices and money, getting new projects and new research work, building new relationships, going to different types of events, doing and exploring new stuff and building myself. **(Richard, Initial Interview)**

Richard's entrepreneurial orientation can be seen in his willingness to take proactive steps in building his business and engaging with new opportunities. Despite the uncertainty and risk of extending beyond his initial abilities and comfort zone, Richard was able to tolerate ambiguity while pursuing his financial and lifestyle goals through his business and entrepreneurial endeavour.

6.4 Catalyst for Change

Prior to starting his business, Richard indicated his employment experience as a software developer and research assistant at a University in Southwest England. He indicated that his trajectory into entrepreneurship took shape from his feelings of stagnation in his employment:

It felt like I was in stasis for a good two years. [...] What I really wanted to do was take the next step for myself and do bigger things. It definitely has felt like the right choice in my own personal career, and my own development. **(Richard, Initial Interview)**

During his time, he encountered a range of problems that became increasingly prevalent, such as misalignment between budgets, his skills and timelines allotted to complete the project:

[Early on] there were definitely projects that were like, 'oh, this is exciting' or 'this is different to jump in to.' But there were problems I found with under budgeting money or time. We were having to rush projects for the money [...] but there was a disconnect between my time, work and experience as developer and the work coming in, both the research and the client. **(Richard, Initial Interview)**

He noted his feeling of excitement when projects were aligned, but found repeated challenges with his previous employment that caused frustration and impacted his sense of stability:

That was always a point of frustration. There were several projects we did but we didn't get paid a lot of money for. They were either rushed initially to development and then had a lot of time in support, or they

were for not a lot of money and then they didn't lead to the next project for one reason or another. I found that was a frustration for me with the stable contract element. **(Richard, Initial Interview)**

He emphasised these employment experiences and an unexpected change from a year prior that had impacted his personal sense of financial stability:

My contract transitioned into temporary that had to be renewed. The next projects that came in, part of that money went into keeping my contract going. Then last year, the money started to dry up. I had a significant cut in my income and I had to do more freelancing. That pushed me along to start my own thing. **(Richard, Initial Interview)**

This experience became a catalyst for change, as Richard needed more financial security. To find alternative income, Richard expanded from his freelance experience and established his business:

I've had a main employment role before and done extra, small self-employed, sole trader bits. Now I've gone to the full set up with a limited company, hired an accountant and doing everything proper. **(Richard, Initial Interview)**

Richard noted his deliberate efforts in setting up his business entity and a number of concerns about protecting himself and his work more effectively than as a freelancer:

Having legal protection, especially working with large organisations, that I have agreements in place with clauses for [Intellectual Property] and then having this one step away from me, personally. I quite like having a structure to put myself into. **(Richard, Initial Interview)**

Richard highlighted his goal to limit risks in his entrepreneurial endeavour before committing on a full-time basis. He clarified the direction and guidance from friends, colleagues and professionals that accelerated his transition into entrepreneurship:

It's given me that confidence to take that leap knowing I've got this community of people around me, who are looking out and interested. **(Richard, Initial Interview)**

He indicated his feelings of self-assurance against the backdrop of having help from friends and colleagues in his local start-up community he found trustworthy and willing to guide him. This supportive and positive feedback helped Richard to feel reassured in his business decisions and eased his transition from work as a freelancer into his own business. Richard's narrative highlights his personal development as he acted to set up his company and reclaim control of his financial situation.

6.5 Within-Diary Variation

During the diary study, subjective appraisals were repeated longitudinally (19 stages). These subjective measures were taken first as baseline within the initial questionnaire, prior to the initial interview and diary research (Table 30).

Table 30. Baseline for repeated subjective appraisals (Case 3)

	Question	Short Name	Response
Repeated measures baseline	<i>'I am pleased with how my business is doing.'</i>	Business Progress	Agree
	<i>'The current context for my business is particularly challenging.'</i>	Challenging Business Context	Somewhat Agree
	<i>'My business faces a high degree of uncertainty.'</i>	Business Uncertainty	Strongly Agree
	<i>'My business decision making tends to be rushed.'</i>	Rushed Business Decisions	Somewhat Agree
	<i>'I have accounted for the major issues facing my business.'</i>	Business Awareness	Neutral
	<i>'My business feels out of control.'</i>	Business Control	Somewhat Disagree
	<i>'I worry about my business failing.'</i>	Business Failure Worry	Somewhat Agree
	<i>'I feel equipped to handle the challenges facing my business.'</i>	Equipped for Challenges	Agree
	<i>'My business makes me feel stressed.'</i>	Business-related Stress	Somewhat Agree
	Further Explanation	No response	

The diary study in this case lasted for 111 calendar days, with each stage representing approximately 6 calendar days.³ An overview for all subjective measures and diary stages for this case are presented after the Chapter Summary, as displayed in Table 32.

³ Days between diary entries calculated from Stage 2 to Stage 19; \bar{x} =6.16, min=3, max=16

6.5.1 Situation-specific Challenges

Richard reported salient business challenges throughout the diary study phase of the research (6 stages, 32%; see Table 33 for challenges by longitudinal stage). These challenges corresponded with deviations in his appraisals of challenging business context, business-related stress, uncertainty, and worry about business failure. Richard presented a range of challenges during the diary study, but challenges early on were primarily indicated as financially-oriented, such as securing payments and closing sales, aligning with his emerging awareness of personal limits and a need to gain further business-related skills (see Entrepreneurial Orientation; Equipped for Business Challenges). These situation-specific challenges included chasing invoices (Stage 3), keeping himself healthy (Stage 4) and finding additional sources of revenue (Stages 6 & 7) after losing a client contract unexpectedly.

However, his reported challenges shifted for the remainder of the diary study as he acquired these further contracts to a focus on balancing his time between existing and new commitments (Stages 9, 12 & 17). These challenges included initiating a new project (Stage 9) and managing a difficult consultation (Stages 12) and business development opportunity (Stage 17). The overarching themes throughout this case show connections between the challenges he reported, changes in his appraisals during the diary study and interviews regarded efforts to facilitate his financial security and reach performance goals. These efforts extended to his desire for business growth and personal lifestyle. These are consistent dimensions in his appraisals and thus overarching themes throughout this case.

6.5.2 Dynamic Response Patterns

Stability classifications are grouped based on identifiable response pattern characteristics, including overall valence, degree of variation and frequency of divergences (Table 31). Stable response patterns include minimal variation and infrequent divergences, while unstable patterns showed high variation and intermittent or longstanding divergences.

Table 31. Grouping of within-diary response patterns (Case 3)

Richard (Case 3)		Valence	Divergence	Variation	Classification
					Stability
Group 1	Business Progress	Positive (1)	None (0)	Minor (1)	Stable (2)
	Equipped for Business Challenges	Positive (1)	None (0)	Minor (1)	Stable (2)
	Business Control	Positive (1)	None (0)	Minor (1)	Stable (2)
	Business Factors Awareness	Positive (1)	None (0)	Minor (1)	Stable (2)
	Challenging Business Context	Negative (2)	None (0)	Minor (1)	Stable (2)
Group 2	Business Failing Worry	Mixed (4)	Intermittent (2)	High (2)	Unstable (4)
Group 3	Rushed Decision-making	Neutral (3)	Longstanding (4)	Minor (1)	Unstable (5)
	Business-related Stress	Neutral (3)	Longstanding (4)	Minor (1)	Unstable (5)
	Business Uncertainty	Negative (2)	Longstanding (4)	Minor (1)	Unstable (5)

The response patterns for five subjective measures met Stable criteria. One group of stable measures was identified. This first group consisted of five Stable measures: Business Progress, Equipped for Challenges, Business Control, Factors Awareness and Challenging Context. Only minor variations and no divergences given on these measures regardless of reported challenges. Explanations for stability on these measures were available primarily through his interviews.

However, response patterns for four subjective measures met Unstable criteria. Two groups of unstable measures were identified. The second group consisted of one measure with intermittent fluctuations: Failure Worry. Frequent divergences corresponded with specific challenges that Benjamin faced during the diary study and helped account for low continuity on these measures. Finally, a third group consisted of three measures characterised by a longstanding change in his appraisals: Rushed Decisions, Stress, and Uncertainty. Response patterns on these measures represented a longstanding change that persisted over multiple stages.

6.5.2.1 Stable Response Patterns

The dynamic response patterns for seven subjective measures were classified as Stable during the diary study due to high continuity in the overall valence in his responses.

(1) No divergences

This first group consisted of five Stable measures: Business Progress, Equipped for Challenges, Control, Factors Awareness and Challenging Context. Explanations on these measures were available primarily through his interviews.

(a) Business Progress

Richard's positive ($f=19$, 100%) appraisals of business progress were represented by his *agreement* with the statement, 'I'm pleased with how my business is doing' (Figure 33). The overall continuity of his appraisals indicated a stable perception of business progress.

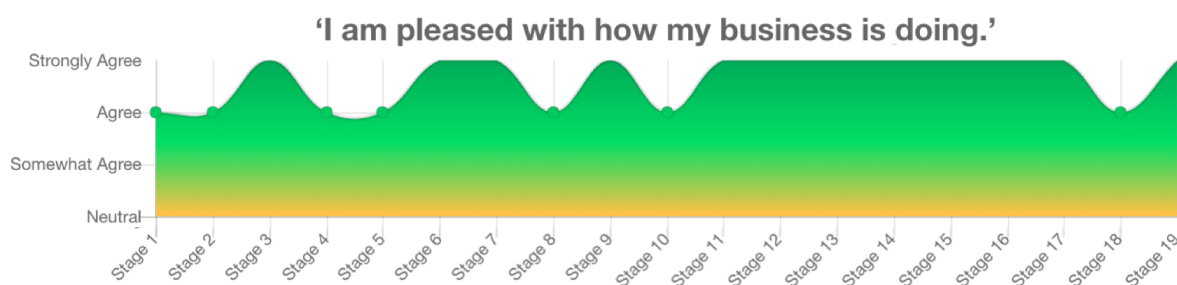


Figure 33. Appraisals of business progress (Case 3)

Explanations for this stability were available primarily through his interviews. Richard acknowledged the emerging challenges facing his business yet consistently responded with positive appraisals on this measure of business progress.

Setting achievable performance targets

In his initial interview, Richard specified the importance to him of setting performance targets that he felt were practical for the early stages of his business:

When I was in that initial starting phase, that build up to now, I set myself targets, financial goals to achieve, for how much do I want coming in each month. I've got a good hold on this and I feel comfortable I can achieve them. You've got to be realistic. You've got to know that long term is four or five years down the line. **(Richard, Initial Interview)**

He indicated that reaching his financial targets would depend on his ability to balance his goals.

Evaluating performance against initial targets

In his final interview, Richard expressed his satisfaction with progress during the diary study:

Yeah, my confidence is building [...] It's brilliant! I feel really excited to be in this position. I feel like it's enabling. It's exciting to have lots of interesting smaller projects coming up, along with bigger ones later in the year. **(Richard, Final Interview)**

Richard's sense of satisfaction with progress in his business was reinforced as he accounted for his upcoming pipeline of projects:

I know I've got projects and money coming in right through into the end of this year and the start of the next. It's a nice realisation that, "oh, this is working! This is stable. Maybe I don't need to get a real job!" **(Richard, Final Interview)**

He evaluated his progress based on improvements in his financial stability:

It's nice to cross over my own personal targets for the year. The invoices that have come in the last week have pushed me over that half-year target. I'm on track for what I wanted to be earning this year, which makes me feel really good. This has made me feel confident investing my time and investing in new equipment and office space. Generally, really positive. **(Richard, Final Interview)**

Richard indicated that reaching performance targets had strengthened his optimistic attitude that things were working in his business. As Richard identified further opportunities that better ensured his financial stability, his focus transitioned from financial concerns to intensifying commitment and balancing his time and resources. He acknowledged challenges he faced in his business and simultaneously maintained a sense of satisfaction with business progress.

(b) Feeling Equipped for Business Challenges

Richard's positive ($f=18$, 95%) appraisals were represented by his consistent agreement with the statement, 'I feel equipped to handle the challenges facing my business' (Figure 34). Minor variations were evident including one missed entry at Stage 5. The overall continuity of his appraisals indicated a stable perception of his ability to handle business challenges.



Figure 34. Appraisals of feeling equipped to handle challenges (Case 3)

Explanations for this stability were available primarily through his interviews. Richard acknowledged the emerging challenges facing his business during the diary study and expressed confidence in his ability to handle them.

Drawing on relevant past experience

In his initial interview, Richard expected his previous experiences would transfer to his business:

In my university roles I was doing multiple jobs, rather than someone sitting down coding all day. I was doing support, research, teaching, answering emails and communicating. I'm used to having different projects. **(Richard, Initial Interview)**

He further clarified his expectation that he would be able to draw on relevant past experience of switching between roles and adapt a similar way of working to entrepreneurship. Indeed, he acknowledged challenges he had been facing in the few months prior to the diary study:

I'm learning something new, I'm exploring, and I get to go to a new network. So, while the money isn't there now, if I put the effort in, I can see it pay off much further down the line. **(Richard, Initial Interview)**

He noted difficulties in his current financial situation, but he suggested that something good might develop for his business. While not being able to predict where his business might end up, this redefinition helped him remain optimistic that things would work out over time.

Adapting priorities to changing reality

Richard considered his relevant past experiences and personal abilities, but noted specific challenges impacting his business in the first few months that he did not feel prepared to handle:

It's essentially closing loops. I know how to generate conversations and new opportunities. Where I'm struggling is making sure things finalise. I feel like I do leave things probably too long. I just need to learn to be more pushy and forcefully with things, and follow up with people quicker. But I think that will come in time, that's just getting used to that business ethic. **(Richard, Initial Interview)**

He identified a business-related mindset ('business ethic') and skills ('close the sale') that required him to develop further. However, this also indicated his perception of behaviour ('more pushy and forcefully') that extended beyond personal preferences.

By comparison, he suggested that this difficulty he was experiencing now as an entrepreneur was caused by inability to gain the skills he needed from his previous employment:

[My experiences] at university, I'd be working on the opportunity, but I wouldn't be the person closing the deal, or getting the invoicing in. That's now my job. That's just practice and something I couldn't prepare for [with my prior experiences]. **(Richard, Initial Interview)**

He clarified his perception of sales that he was comfortable with, such as 'people who knew him directly' and 'knew exactly what they wanted'. However, Richard acknowledged that he now needed to find work and change his way of thinking:

I think it'll come. It'll be there. There probably was not as much opportunities beforehand. I've been too reliant on work coming to me.

Now comes the push in the next month or two, then that initial work will start finishing and I will need to make sure that I have next things ready [emphasis added]. (Richard, Initial Interview)

Richard expressed confidence about learning the business-related skills he needed while pointing to an upcoming ‘push’ over the following months when he anticipated needing these skills.

Obtaining direction and guidance to learn new practices

In this early stage of his business, Richard indicated his perception that no normative sets of business practices were available to him:

I’d say there’s no definitive answers, no one right way of doing business or setting yourself up. It’s important to rely on people you trust, who give you the right ideas and give you the right insights. **(Richard, Initial Interview)**

He expressed a flexible notion that allowed him to change his responses:

[...] just trying new processes or ideas. I’m seeing myself as a prototype. I’ll try this or say this differently to a client. I’ll at least give it a shot. Then I’ll get an idea if it’s worked or is effective. **(Richard, Initial Interview)**

Richard indicated his willingness to adjust to his changing priorities, but also confirmed direction and guidance from social support as a consistent factor that provided a buffer:

It’s always case of I can ask someone and say, ‘how do you deal with this? And how do you approach it? Can you look at...’ I asked a friend to look at a couple of emails sometimes and say, ‘do I sound like I’m being horrible in this response? Am I being too terse?’ **(Richard, Final Interview)**

He recognised the importance of this social support for helping him develop his business:

I don't think this would have worked without that network of people around me. I don't feel like I could have stepped out on my own and been as successful or positive as it's been. I've had these roots that's enabled it. **(Richard, Final Interview)**

He shared how his early entrepreneurial experiences interconnected with development of new practices and business-related skills.

(c) Business Control

Richard's overall positive ($f=18$, 95%) appraisals on this measure were represented by his consistent disagreement with the statement, '*My business feels out of control*' (Figure 35). Minor variations were evident including one missed entry at Stage 17. This continuity in his appraisals indicated a generally stable perception.



Figure 35. Appraisals of business control (Case 3)

Explanations were available primarily through his qualitative interviews when he highlighted problems that became prevalent with his previous employer (6.4 Catalyst for Change). In his initial interview, Richard attributed his decision to start his business to the frustrations caused by this employment experience:

I didn't get the stability of employment. There was a risky feeling, 'is it going to be renewed?' [...] While I still have that risk, now I have control for that communication. It's a choice of being in control of my own destiny or taking that risk of reliance on the university. I thought, 'right, I'm going to do this by myself.' **(Richard, Initial Interview)**

These experiences impacted his sense of stability. He shared his perception through his personal ability to limit risks and reclaim control of his financial situation.

In his final interview, Richard explained his pattern of responses on this measure connected to his sense of personal responsibility:

I disagreed with that because I felt like while I'm setting up this thing and I am on my own, I'm responsible to myself, it's all my own decisions and issues with the business. They're all on me to get on top of, they're all on me to work through, or deal with and there's no external implements on that. **(Richard, Final Interview)**

He clarified his personal ability to cope with challenges during the diary study and reduce the likelihood of experiencing financial difficulties:

Actual logistics of doing business, I felt that was controlled. I felt like there's stress to keep me going but nothing that isn't manageable, overwhelming or that I can't deal with or speak to someone about. **(Richard, Final Interview)**

He indicated not feeling overwhelmed, but still suggested that gaining business control linked with his self-awareness and ongoing efforts to manage *personal* 'issues':

I know I will develop that over time and I'm learning from my mistakes and issues and taking control of stuff for myself. That's been the most satisfying part. I know where I have issues and where I have problems and it's on me to take those steps, to reflect and take control of the business side. It feels really enabling. **(Richard, Final Interview)**

He expressed becoming aware during the diary study of vulnerabilities or personal limits that could impact his business control. Richard noted that working to resolve personal limits was crucial for business progress. He made it clear that this understanding took him time to develop, despite his self-identified personal characteristics and preferences. In this case, Richard early experiences as an entrepreneur were interconnected with his development of business skills, expanded further under Equipped for Challenges.

(d) Business Factors Awareness

Richard's positive ($f=18$, 95%) appraisals on this measure were represented by *agreement* with the statement, 'I have accounted for the major issues facing my business' (Figure 36) during the diary study. His baseline measure (Stage 1) started as a neutral appraisal, then changed to positive for the remainder of the study. Overall, continuity in his appraisals indicated a stable perception on this measure.

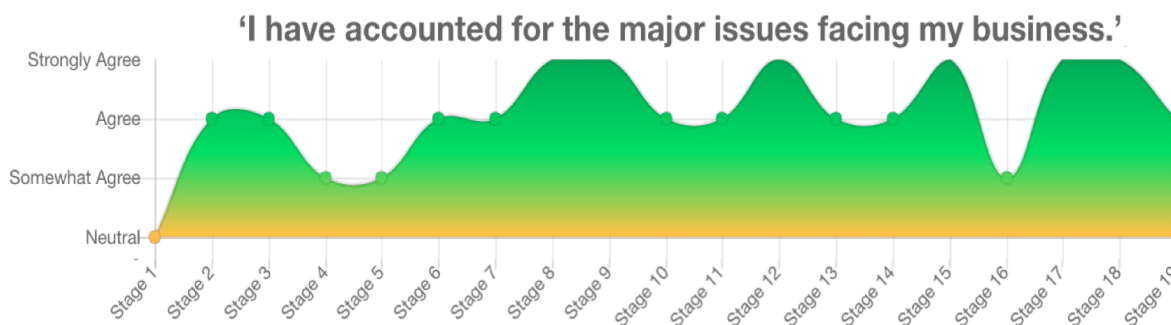


Figure 36. Appraisals of major issues facing business (Case 3)

These response patterns were aligned closely with Progress, Equipped for Challenges and Control, which provide further explanations from his interviews. The most relevant explanations include his deliberate efforts, research and preparation for his business before committing on a full-time basis (see 6.4 Catalyst for Change). Indeed, his perception of issues facing his business was further helped by the direction and guidance he obtained from friends, colleagues and professionals who helped to accelerate his transition into entrepreneurship and provided ongoing support (see Equipped for Business Challenges). He also expressed a flexible notion of business practices that allowed him to replace incorrect knowledge and adjust his response strategy to new information or unfamiliar challenges.

(e) Challenging Business Context

Richard's negative ($f=16$, 89%) appraisals of his current business context was represented by *agreement* with the statement, 'The current context for my business is particularly challenging' (Figure 37). Minor variations were evident, including fluctuations to neutral ($f=2$, 11%) at end of the observational period (Stages 18 & 19). The overall continuity of his appraisals indicated a generally stable perception of a challenging business context.



Figure 37. Appraisals of challenging business context (Case 3)

Explanations that accounted for this stability were not readily available through his interviews. However, Richard indicated in his interviews and diary study that he recognised, accessed and utilised the direction and guidance from people in his local community to support his personal and business growth. Indeed, his stable and negative responses on this measure contrast with stable and positive measures.

6.5.2.2 Unstable Response Patterns

The response patterns for four subjective measures were classified as Unstable during the diary study.

(2) *Intermittent Divergences*

This second group consisted of one measure: Failure Worry. Divergences corresponded with challenges faced during the diary study.

(f) *Business Failure Worry*

Richard's appraisals of whether his business might fail were *mixed*, represented by intermittent variations in his level of *agreement* with the statement, 'I worry about my business failing' (Figure 38). His appraisals were equally positive ($f=8$, 42%) and negative ($f=8$, 42%). This rising and falling in Richard's appraisals indicated business failure worry as an unstable dimension.

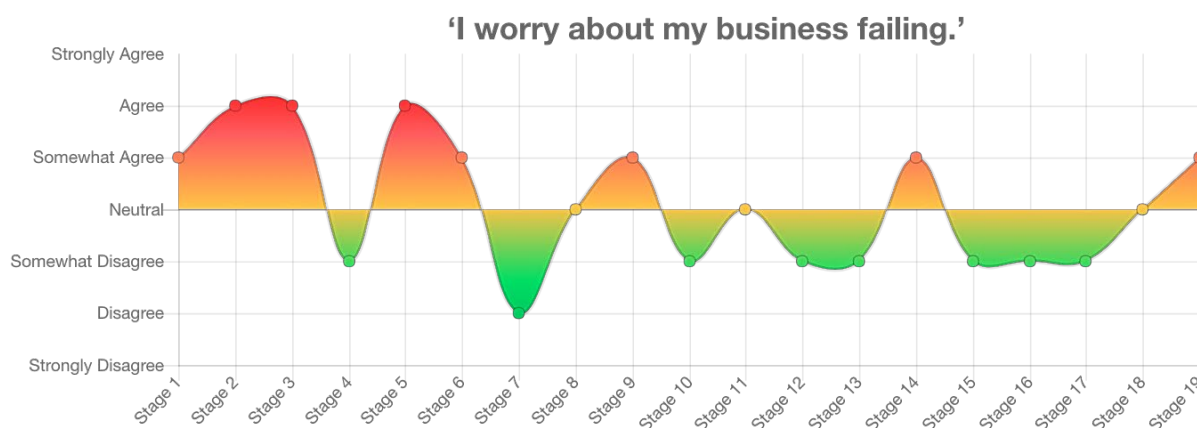


Figure 38. Appraisals of business failure worry (Case 3)

Richard presented a range of challenges during the diary study. The following stages each had a corresponding challenge:

1. Securing invoice payments (**Stage 3**)
2. Personal health (**Stage 4**)
3. Losing a contract unexpectedly & needing additional revenue (**Stage 6**)
4. Improvement in his work and financial situation (**Stage 7**)
5. New contract and balancing commitments (**Stage 9**)

At **Stage 3**, he considered a challenge of securing invoice payments. He provided negative appraisals of Challenging Context, Failure Worry, Stress and Uncertainty. He indicated his concern at this stage about the risk of revenue shortfalls, but that he was coping with uncertainty. Richard recognised this challenge in his initial interview, prior to commencing the diary study:

I'm still waiting for them to pay me, although the invoices are due this week. I had cash beforehand saved up ready to go, that's kept me going and now this money is going to come in. (**Richard, Initial Interview**)

He recognised the significance of using his savings to keep his business going and would be at stake with unpaid invoices:

My big challenge will be to save up money and keep me going, but if certain invoices or certain projects didn't get paid [...] I just feel nervous. Short time challenge is making sure that money actually shows up. (**Richard, Initial Interview**)

Richard stated his worry about what might happen if he failed to secure payments:

Coming to [around Stage 7], where I was still waiting for pots of money to come in. The initial work was still not paid, and it was coming to the end of goodwill and being able to use that to keep going. **(Richard, Final Interview)**

By the time he received payment he needed, he had been waiting for this invoice for nearly three months. He indicated the importance of receiving this payment:

Luckily the money did come in before that day, about three months overdue from when I was expecting it. Once [the payment] came in, I paid myself properly, cleared off debts and it hasn't been an issue since. It's that hairy moment at the start. But now the income is coming in. I can start building and making sure I've got enough money in the bank. **(Richard, Final Interview)**

This specific challenge persisted through early stages, resulting in Richard's eventual recognition of business skills that he needed to develop, as discussed within Equipped for Challenges.

At **Stage 6**, Richard presented a challenge of losing a contract unexpectedly and needing to find additional revenue. His decision was to use his social support network and was successful in finding the replacement contract that he needed:

Networked, found a role in Bristol and have now agreed a short-term contract. **(Stage 6)**

His anticipated outcome was that his actions would facilitate the replacement he needed and supplement his yearly financial target:

Contract means I can make around one-third of my yearlong target and gives me a great support net for taking on smaller and more experimental projects. **(Stage 6)**

This diary account regarded Richard's decision and response to this challenge. He recovered from this situation, yet still provided negative appraisals of Challenging Context, Failure Worry, Stress and Business Uncertainty.

At **Stage 7**, he did not report a specific challenge, but provided an explanation of further improvement in his work and financial situation: “Confirming more work and hitting targets.” This account regarded positive business developments and reaching his performance goals. His appraisals of Challenging Context and Uncertainty remained negative.

At **Stage 9**, Richard presented a challenge related to balancing his time between commitments. He reported his decision to communicate changes and recalibrate expectations: “Being honest with clients about other work, making sure not to overburden myself.” His anticipated outcome was that his client would be sympathetic: “Smaller clients have shifted deadlines. They appreciate the honesty and understand that larger work take priority.” He reported negative appraisals of Challenging Context, Failure Worry, and Uncertainty.

In his initial interview, Richard expressed his perception of worry as a longstanding experience:

I tend to think a lot... I tend to overthink. I get too anxious about stuff. But I've learned over the years that in order to get over that, I've got to make sure I find the right information and do the right research.

(Richard, Initial Interview)

He considered business challenges more generally in relation to this sense of worry, as a more general tendency to ‘overthink’ and feel ‘anxious’. He stated that his learned approach to resolve these feelings was to seeking information that might be missing information. Richard indicated that his circumspection had preceded the diary study. Similarly, he again expressed his tendency to feel ‘anxiety’ in his final interview:

Probably my only issue... well, my tendency is to over commit and overtake on stuff. It's maybe the anxiety part building into that. The impostor syndrome is like, “*I've got to do so much to impress people.*” I've got to learn to take steps back from things not be perfectionist with my work. **(Richard, Final Interview)**

This established a connection between the initial and final interviews that helped to account for his changing responses on this measure. This further indicated a

background factor or personal characteristic for Richard and a more direct connection to his business decisions and issues that could impact his performance.

(3) Longstanding Divergences

This third group consisted of three subjective measures: Rushed Decisions, Business Stress and Business Uncertainty. These measures were presented with a longstanding change during the study.

(g) Rushed Decisions

Richard presented overall neutral ($f=13$, 72%) appraisals of the statement, '*My business decision making tends to be rushed*' (Figure 39). Minor fluctuations were evident between negative ($f=2$, 10%) and positive ($f=4$, 21%) at the start (Stages 1-4) and end (Stage 16 & 19) of the observational period. This lack of continuity indicated his unstable perception of making rushed business decisions.

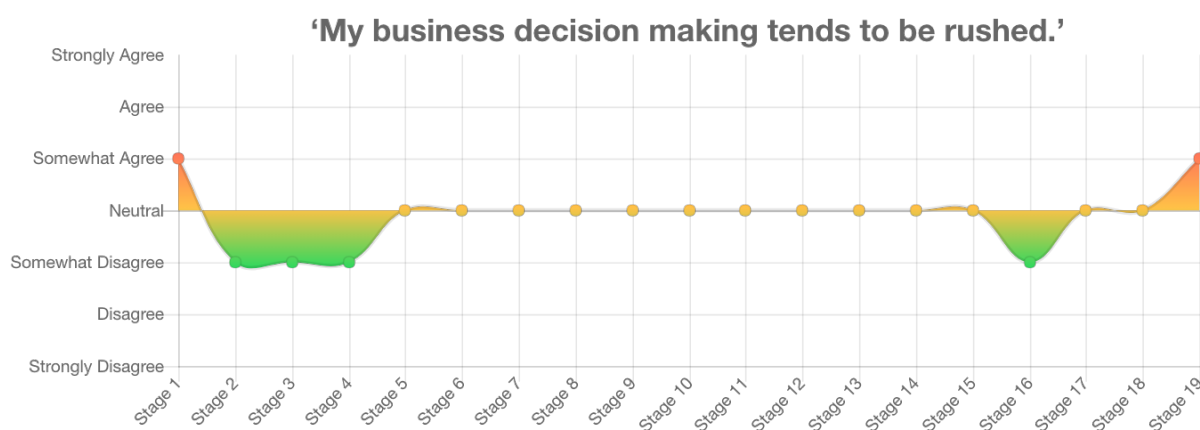


Figure 39. Appraisals of rushed business decisions (Case 3)

Richard presented a number of decisions during the diary study, yet explanations for his appraisals were not readily available in his diary accounts. In his initial interview, Richard explained his desired behaviour and rules he intended to apply to his business that he felt could reduce pressure on him:

It's combining that with projects that come in that pay money, making sure this is building up and still *moving slowly, not trying to rush everything and making sure that I'm not over committing myself with too many projects at times* [emphasis added]. **(Richard, Initial Interview)**

He wanted to be careful when selecting and committing to projects. He also highlighted his desire to be more deliberate in his business growth, which was evident in his emphasis on ‘moving slowly,’ ‘not trying to rush everything’ and ‘not overcommitting [...] with too many projects.’ This may also be related to his expressed personal need to ‘find the right information and do the right research,’ as he indicated under Failure Worry.

(h) Business-Related Stress

Richard’s overall assessment of business-related stress was *neutral* ($f=13$, 68%) throughout most of the study, indicated by his appraisals of the statement, ‘*My business makes me feel stressed*’ (Figure 40). Minor fluctuations were evident between negative ($f=5$, 16%) and positive ($f=1$, 1%) at the start (Stages 1-8) and end (Stage 17) of the observational period. This lack of continuity indicated his unstable perception of business-related stress.



Figure 40. Appraisals of business stress (Case 3)

Richard’s appraisals of business stress fluctuated during the diary study with personal and business challenges. These challenges included chasing invoices (Stage 3) and finding additional sources of revenue (Stages 6 & 7) after losing a client contract unexpectedly. Details for both challenges are provided under Failure Worry.

At **Stage 17**, the final challenge Richard reported was related to meeting deadlines and an upcoming conference and keynote speech. His decision was to ask for help and postpone what was achievable: “*Delegate and put off as much as possible.*” His anticipated outcome was that his actions would facilitate growth for himself and his business: “*A big personal launch.*” He provided neutral appraisals of

Rushed Decisions and Uncertainty and negative appraisals of Challenging Context and Stress. In his final interview, he referenced the challenge of giving a keynote speech:

I find the public speaking part very easy. It's not very stressful for me to put a talk together. It's something I can do on the hours before and look like I have been rehearsing it for weeks and weeks and weeks. That's a skill I'm lucky to have. **(Richard, Final Interview)**

He expressed his positive self-assessment that reinforced his confidence and ability as a speaker. While he provided a negative appraisal of stress, Richard's appraisal and response indicate his positive experience; thus, stress at this stage connected to his need to balance time between his various commitments.

Rebalancing business and personal life

In his initial interview, Richard indicated his concern about stresses that he wanted to avoid as an entrepreneur. He also stated his desire to mitigate the likelihood or risk of becoming overloaded in the business and his intentions to stay balanced:

Definitely making sure that I'm giving myself my weekends off, making sure I'm not trying to work in the evenings, and looking after myself, because *if I burnt out and if I start having problems, then that's going to have a big knock on effect to everything else* [emphasis added]. **(Richard, Initial Interview)**

He suggested that setting limits on his time, such as not working in the evenings or weekends, could help prevent a negative experience of stress and potential consequences for his business.

In his final interview, he provided a retrospective account of his ability during the diary study to keep himself and his work balanced:

I'm so bad... putting too much effort or putting too much energy into work and probably not giving myself enough time to rest [emphasis added]. But I've given myself flexibility. **(Richard, Final Interview)**

He indicated his desire to wanted to take time away from work but reported difficulty finding time for himself and staying balanced as intended:

There have definitely been a few weeks in the last couple of months where I've done too much and felt burned out and tired afterwards. I've learned to keep it in-check. There's no burn out, no crashing and stopping or anything like that. While I've probably given myself too much to do, I've kept up on things. I've been honest with people that I needed to move things. That's been good. **(Richard, Final Interview)**

While he stated feeling 'burned out' and 'tired' at various points during the study, he indicated *changes* in his ability to cope and balance his commitments. Richard summarised how he considered his overall levels of stress:

[Stress] is there, but it's been manageable. There've been stresses, but it's never felt overwhelming. It's felt balanced. **(Richard, Final Interview).**

He characterised his experience as 'manageable' and not feeling overloaded. This was evident in his report of minimal impacts on himself and business from challenges.

(i) Business Uncertainty

Richard's overall *negative* ($f=12$, 63%) appraisals of business uncertainty were represented by *agreement* with the statement, 'My business faces a high degree of uncertainty' (Figure 41). His appraisals were consistently negative until Stage 12, followed by fluctuations between positive ($f=3$, 15%) and neutral ($f=4$, 21%) for the remainder of the diary study. This lack of continuity in his appraisals indicated his unstable perception of business uncertainty.

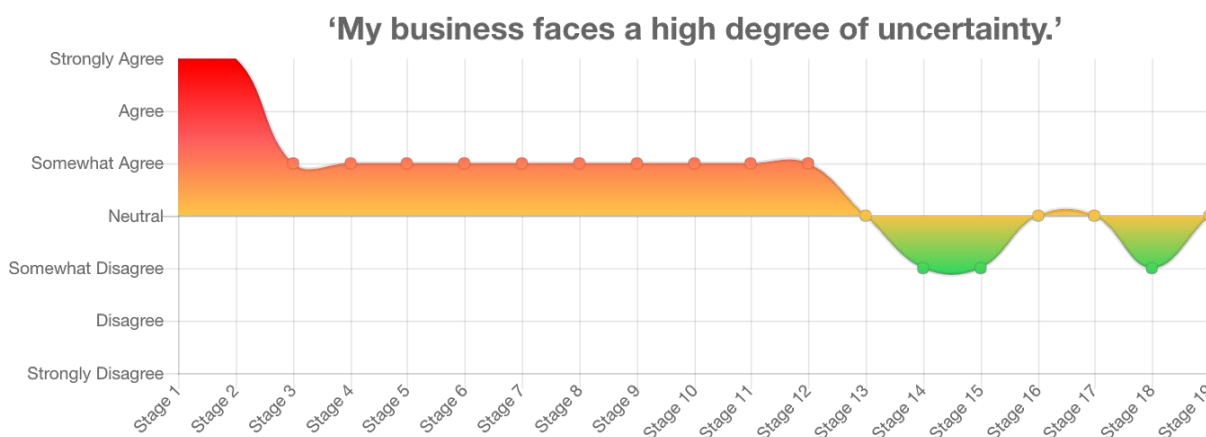


Figure 41. Appraisals of business uncertainty (Case 3)

Explanations for this longstanding change were presented in his diary accounts and interviews.

At **Stage 12**, Richard reported a challenge: “Difficult client - felt a lack of respect for time and expertise.” His decision was to set boundaries on his time: “Work with another person to support project, deliberately limit myself in tiny time frame for responses.” He indicated his ambivalence about his anticipated outcome: “Client should be fine with what was provided, but I'm not worried if they aren't and go to another supplier.” He provided neutral appraisals of Rushed Decisions and Business Stress and negative appraisals on Challenging Context and Uncertainty. Following Stage 12, Richard did not report any further negative appraisals.

In his final interview, Richard offered further detail about this challenge as a longstanding situation, which he had decided to engage with early on in his business:

The client we were talking to was really pushing *me* for a lot of information. They were trying to sell a product that they hadn't built, and they were asking me for all the information and timing about how we were going to build it and then sell it to a client, get the money in and then build it out. **(Richard, Final Interview)**

From his perspective, he was consulting with a potential ‘client’ as he provided information about how he would develop and commercialise a new product. Richard began to recognise problems with providing too much information. The first problem he reported was *‘losing his negotiating position’*:

I became very [concerned] like, ‘I’m telling you a lot of information about this,’ and I felt like I’m losing my negotiation position. **(Richard, Final Interview)**

Additionally, he reported the difficulty of balancing opportunities with *‘long-term’* potential and finding short-term projects:

That then built another level of stress because I’m trying to get contracting work and manage a client that wants you for the long-term, but you need to focus on the short term to get the money in to get you over that point. **(Richard, Final Interview)**

He expressed his experience of feeling financial pressure, but only set boundaries in his interaction after reaching personal limits and providing information to this ‘client’:

They got everything they needed, but now I haven’t heard from them in a while, presumably they haven’t found anything. They’ll just get in contact with us — *well me* — when they’ve got it available. **(Richard, Final Interview)**

He expressed optimism about this opportunity while also reporting this as a negative experience. In assessing this situation, Richard stated that he found this situation difficult without guidance and direction on how to handle this specific challenge:

I knew it would come. I knew it would have to be my decision. I don’t have a manager. I don’t have someone above me telling me ‘no you shouldn’t be working with this person’ or giving me that level of protection, like someone you could just defer to say, ‘no, we’re not going to do this’ or ‘we’re not going to work on this thing.’ That’s a new experience. **(Richard, Final Interview)**

He indicated awareness of skills to handle this issues differently in the future and began consolidating his learning from this situation as a need to set boundaries to protect himself:

One of the things to learn is to ‘fire’ clients and to step away and say “no” to people. And that’s another skill that you learn and built up eventually. I knew it was going to come. I knew it was going to be this difficult at times. **(Richard, Final Interview)**

Despite reporting a negative experience, he indicated acceptance of his situation, redefined what happened and reported learning what he felt was most important:

While I don’t like to, I’ve had to tell people to stop or go away. It’s a case of doing it in a way that doesn’t burn bridges and keeps the conversation open. Keeps it friendly. So far it seems to have gone well. **(Richard, Final Interview)**

Richard eventually changed his assessments to become more aligned with the changing reality of the situation, albeit with reluctance. He still retained optimism that this prospective client and opportunity were both genuine but reported adjusting his approach and asserting a boundary in his interactions. Following his account at Stage 12, his appraisals of Uncertainty shifted to positive for the first time, indicating temporary *misalignment* between Richard's assessment of this opportunity and his commitment of resources (financial, time and emotional).

6.6 Chapter Summary

Richard's narrative highlights his personal development as he acted to set up his company and reclaim control of his financial situation. His underlying concern was about actions needed to facilitate his financial security and reaching his performance goals. The direction and guidance he received from friends, colleagues and professionals accelerated his preparation and transition into entrepreneurship. Richard's intention was to build his business by using prior experiences as a developer and research assistant (see 6.3 Entrepreneurial Orientation). He highlighted his deliberate efforts to limit risks in his endeavour before committing on a full-time basis.

His early preparation included saving money, setting up his business entity and projects with revenue prior to starting full-time. While engaged in his business, Richard began successfully addressing an emerging range of challenges for which he had prepared. Despite his early preparation and social support, Richard became more aware of his personal limits as he faced novel business challenges, but he was mostly able to fall back on his social support to buffer him from substantial mistakes or poor decisions. This ameliorated many of his expressed concerns of becoming isolated, resulting in his increased self-confidence and efficacy of his business decisions and coping responses. This further served as a connection between the challenges he reported and changes in his appraisals during the diary study and interviews. Evidence in this case indicates that if Richard had been less aware or unwilling to engage with social support, he would have experienced a higher degree uncertainty and stress, substantially more pressure on his personal resources (financial and emotional) and an increased likelihood or risk of business failure.

Table 32. Diary study longitudinal measures of subjective assessments (Case 3)

	Stages	Business Challenges	Business Progress	Challenging Business Context (N)	Business Uncertainty (N)	Rushed Decisions (N)	Business Factors Awareness	Business Control (N)	Business Failure Worry (N)	Equipped for Challenges	Business-related Stress (N)
Baseline	Stage 1		Agree	Somewhat Agree	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Somewhat Agree	Agree	Somewhat Agree
Repeated Measures	Stage 2	No	Agree	Agree	Strongly Agree	Somewhat Disagree	Agree	Disagree	Agree	Agree	Somewhat Agree
	Stage 3	Yes	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Agree	Somewhat Disagree	Agree	Agree	Somewhat Agree
	Stage 4	Yes	Agree	Somewhat Agree	Somewhat Agree	Somewhat Disagree	Somewhat Agree	Disagree	Somewhat Disagree	Agree	Neutral
	Stage 5	No	Agree	Somewhat Agree	Somewhat Agree	Neutral	Somewhat Agree	Disagree	Agree	Skipped	Neutral
	Stage 6	Yes	Strongly Agree	Agree	Somewhat Agree	Neutral	Agree	Somewhat Disagree	Somewhat Agree	Agree	Somewhat Agree
	Stage 7	No	Strongly Agree	Agree	Somewhat Agree	Neutral	Agree	Disagree	Disagree	Agree	Neutral
	Stage 8	No	Agree	Agree	Somewhat Agree	Neutral	Strongly Agree	Somewhat Disagree	Neutral	Somewhat Agree	Somewhat Disagree
	Stage 9	Yes	Strongly Agree	Agree	Somewhat Agree	Neutral	Strongly Agree	Somewhat Disagree	Somewhat Agree	Agree	Neutral
	Stage 10	No	Agree	Somewhat Agree	Somewhat Agree	Neutral	Agree	Somewhat Disagree	Somewhat Disagree	Strongly Agree	Neutral
	Stage 11	No	Strongly Agree	Agree	Somewhat Agree	Neutral	Agree	Somewhat Disagree	Neutral	Agree	Neutral
	Stage 12	Yes	Strongly Agree	Agree	Somewhat Agree	Neutral	Strongly Agree	Disagree	Somewhat Disagree	Agree	Neutral
	Stage 13	No	Strongly Agree	Somewhat Agree	Neutral	Neutral	Agree	Disagree	Somewhat Disagree	Agree	Neutral
	Stage 14	No	Strongly Agree	Agree	Somewhat Disagree	Neutral	Agree	Somewhat Disagree	Somewhat Agree	Agree	Neutral
	Stage 15	No	Strongly Agree	Agree	Somewhat Disagree	Neutral	Strongly Agree	Disagree	Somewhat Disagree	Agree	Neutral
	Stage 16	No	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Somewhat Agree	Disagree	Somewhat Disagree	Agree	Neutral
	Stage 17	Yes	Strongly Agree	Somewhat Agree	Neutral	Neutral	Strongly Agree	Skipped	Somewhat Disagree	Somewhat Agree	Somewhat Agree
	Stage 18	No	Agree	Neutral	Somewhat Disagree	Neutral	Strongly Agree	Somewhat Disagree	Neutral	Agree	Neutral
	Stage 19	No	Strongly Agree	Neutral	Neutral	Somewhat Agree	Agree	Somewhat Disagree	Somewhat Agree	Somewhat Agree	Neutral

Table 33. Business challenges by longitudinal stage (Case 3)

	Stages	Business Challenges	Challenges Addressed	Business Decisions	Anticipated Outcomes	Further Explanation
Repeated Measures	Stage 2					
	Stage 3	Yes	Making sure invoices get paid.			
	Stage 4	Yes	Illness - had a chest infection which messed up sleeping patterns and ability to work	I've mostly powered through it, resting where I can and limiting the hours I've put in.	Need to continue to rest to clear it. It's a big week next week, so I need to be on top	
	Stage 5	No				
	Stage 6	Yes	Lost one project, needed to find something to fill a gap	Networked, found a role in Bristol and have now agreed a short term contract	Contract means I can make around ~1/3 of my year long target, and gives me a great support net for taking on smaller and more experimental projects	
	Stage 7	No				Confirming more work, and hitting targets.
	Stage 8	No				
	Stage 9	Yes	New contract start and fitting around existing commitments	Being honest with Clients about other work, making sure not to overburden myself	Smaller clients have shifted deadlines. They appreciate the honesty and understand that larger work take priority.	
	Stage 10	No				
	Stage 11	No				
	Stage 12	Yes	Difficult client - felt a lack of respect for time and expertise	Work with another person to support project, deliberately limit myself in tiny time frame for responses	Client should be fine with what was provided, but I'm not worried if they aren't and go to another supplier	
	Stage 13	No				
	Stage 14	No				
	Stage 15	No				
	Stage 16	No				
	Stage 17	Yes	Extremely busy - deadlines, exhibiton and a Conference Keynote.	Delegate and put off as much as possible.	A big personal launch	
	Stage 18	No				
	Stage 19	No				

CHAPTER 7: CASE STUDY 4 (JEREMY)

7.1 Introduction

Individual-level longitudinal results and within-case analyses are presented in this chapter for ‘Jeremy’. These results and analyses draw on the full range of empirical data available, including pre-diary (initial) questionnaire and qualitative interview, diary study (14 stages) and post-diary (final) qualitative interview. Results from each source have been analysed inductively, as outlined under 3.6 Data Analysis Methods.

7.2 Personal Background

Jeremy is an entrepreneur and CEO of his company specialising in social research and evaluation services and technology. He is an American white male in his mid-thirties living in a large city in Central England (United Kingdom). He has a postgraduate education in communications (masters) and sociology (PhD). He has been working as a professor and researcher in a Central England university for the last eight years. He had no substantive education in business prior to his start-up, nor did he intend to start a venture or become an entrepreneur. Rather, he translated his professional experience into his first commercial venture after a research and development project highlighted key gaps in the marketplace for research technology.

He has remained active in his company since it was founded less than three years prior to participation in this study. He has worked primarily in consultation and sales to grow his business, has a business partner who helps in day-to-day business and technical operations and a developer employed full-time to build his digital technology. By the time of the first interview, he had developed the digital technology and had been working to bring it to market globally. In this regard, his most salient challenges were related to finding reliable and capable human resources to support business growth. Jeremy has a high personal stake and commitment in the success of his venture and is actively involved in business decisions and ensuring sustained progress in business operations, as seen in Table 34.

Table 34. Participant characteristics (Case 4)

	Question	Response
Selection Criteria	Active in Starting Company	Yes
	Tech Startup Perception	Yes
	Innovation to build	Yes
Active Involvement	Personal Stake	Strongly Agree
	Business Decisions	Strongly Agree
	Operations	Agree
Busines Information	Primary Industry	Social research evaluation services and technology
	Specialist Technology	Yes
	Outside Country of Residence	Yes
	Country of Residence	United Kingdom
	Industry Experience	3 years
	Active in Business	2 years
	Hours per week of work	45 - 55
	Current Company Role	Founder/Co-founder
	Co-founder/Business Partner	Yes
	Co-founder Role	Human Resources, Marketing, Finance, Service Design, Technical Operations
Personal Information	Gender	Male
	Age	30-39
	Spouse/Partner	Yes, I have a spouse/partner (wife/husband, girlfriend/boyfriend, etc)
	Education Level	Postgraduate Degree / PhD
	PhD Subject Areas	Social science

7.3 Entrepreneurial orientation

In his initial questionnaire, Jeremy associated ‘entrepreneurship’ with someone who is a self-starter, while his salient idea of being an ‘entrepreneur’ was associated with meeting the demands of making one’s own way (Table 35).

Table 35. Baseline for repeated subjective appraisals (Case 4)

	Short name	Question	Response
Baseline perceptions	General	In general, what comes to mind when you think of 'Entrepreneurship'?	Self-starter
	Being an 'Entrepreneur'	What comes to mind when you think of being an 'Entrepreneur'?	Stress, challenges, making your own way

Prior to starting his business, Jeremy did not have formal education or training in business, nor did he intend to become an entrepreneur. He translated his experience from eight years as a researcher into his first entrepreneurial endeavour:

My business is about delivering social research services using technology to make it very efficient [emphasis added]. We're able to solve audience research and evaluation challenges, especially for non-profits in the informal learning sector, by using cutting edge technology that's been prepared for that purpose. (Jeremy, Initial Interview)

Jeremy indicated using his prior experience in building his research consultancy:

It's a mix of technological services where our automated system provides the ongoing service and then manual support using expert advice in training in order to help people identify what they need and to get the technical system set up. It's a traditional consulting service plus technical service, as a hybrid. (Jeremy, Initial Interview)

He clarified his business role continued from his experience as a social scientist:

Responsibilities are providing for overall strategic direction [...] in concert with my co-owner and co-founder and then also leading on expert outputs that require expertise in social research evaluation. (Jeremy, Initial Interview)

He shared roles with his business partner, who was focus on technical solutions:

We're not addressing the same parts of the business or challenges, necessarily. What concerns me are my responsibilities like developing new business. What concerns him are aspects he's taken, like developing technical systems to deliver what we promise. (Jeremy, Initial Interview)

He noted his perspective as a business owner compared to his prior experiences:

Having this eagle's eye view of all the concerns, revenue systems, and everything happening is maybe the unique position of running a company. **(Jeremy, Initial Interview)**

Jeremy's entrepreneurial orientation can be seen in his efforts to build proactively from his professional experiences.

7.4 Catalyst for Change

Jeremy is CEO of his entrepreneurial venture and has remained active since it was founded less than three years prior. Reflecting on development in his business, Jeremy identified an emerging trajectory based on crucial events:

There have been key contracts that we've won and not won that've been important moments for the business. There are times we could've been lifted up over the top financially if we had received certain contracts. **(Jeremy, Initial Interview)**

He noted that winning contracts had been pivotal in his business, but discovered that delivery of these contracts depended on adequate support from employees:

Staff that have either stepped up or not to play the role we needed have also been key moments, where things have gone especially well or badly because of their support or lack of. **(Jeremy, Initial Interview)**

In reconstructing his business trajectory, he emphasised changes in his roles had primarily been driven by employees:

My role has become more specialised. Initially, when we didn't have staff it was two of us to cover pretty everything that needed to be done. That wasn't really sustainable. *Over time, in a hit and miss fashion, some tasks had been handed off to other people* [emphasis added]. **(Jeremy, Initial Interview)**

Jeremy indicated his perception of gradual changes to his day-to-day role:

I would say day-to-day roles gradually changed. The biggest changes happened when a new member of staff is in place, and up and running. Either they are very capable, and they take things off our plates, or not. *The relationship between new staff is the primary thing that drives change in my role over time* [emphasis added]. **(Jeremy, Initial Interview)**

He felt his routine business challenges included pressure to ensure regular cashflow:

The recurring challenges are associated with needing to bring in new business. The fact that there isn't someone else who is doing that is a pressure on me to make sure that there is a pipeline of work coming in. **(Jeremy, Initial Interview)**

He reported dealing with these challenges by ask for help and managing his time:

I'm trying to get support, as much as I can, so that I'm not doing any of the parts of the task that could be done by someone else [emphasis added]. I'm trying to find time and make time to push out products and keep the team moving in a direction that will mean there's a pipeline of revenue from some source. **(Jeremy, Initial Interview)**

He highlighted his ongoing concern was about business revenue and adequate support from his staff. While engaged with his business, he adapted to priorities by taking on necessarily roles to ensure business growth. These perspectives underpin difficulties he faced within the diary study.

7.5 Within-Diary Variation

During the diary study, subjective appraisals were repeated longitudinally (15 stages). These subjective measures were first taken as a baseline within the initial questionnaire, prior to the initial interview and diary research (Table 36).

Table 36. Baseline for repeated subjective appraisals (Case 4)

	Question	Short Name	Response
Repeated Measures Baseline	<i>'I am pleased with how my business is doing.'</i>	Business Progress	Agree
	<i>'The current context for my business is particularly challenging.'</i>	Business Context	Somewhat Disagree
	<i>'My business faces a high degree of uncertainty.'</i>	Business Uncertainty	Somewhat Disagree
	<i>'My business decision making tends to be rushed.'</i>	Rushed Business Decisions	Strongly Agree
	<i>'I have accounted for the major issues facing my business.'</i>	Business Factors Awareness	Somewhat Agree
	<i>'My business feels out of control.'</i>	Business Control	Somewhat Agree
	<i>'I worry about my business failing.'</i>	Business Failure Worry	Somewhat Agree
	<i>'I feel equipped to handle the challenges facing my business.'</i>	Equipped for Challenges	Somewhat Agree
	<i>'My business makes me feel stressed.'</i>	Business-related Stress	Somewhat Agree
	Further Explanation	No response	

The diary study in this case lasted for 128 calendar days, with each stage representing approximately 12 calendar days⁴. An overview for all subjective measures and diary stages are presented following the Chapter Summary, as displayed in Table 38.

7.5.1 Situation-specific Challenges

Jeremy presented salient business challenges throughout the diary study phase of the research (9 stages, 64%; see Table 39). These challenges were primarily indicated as inadequate staff support, including failures in technology (Stage 6), client delivery (Stage 8), and proposal development (Stages 9 and 12). Jeremy highlighted and uncertainty about how much he could rely on staff while trying to facilitate business growth. He and his business partner discussed hiring decision (Stage 3) and staff requirements (Stage 4) and began implementing decisions about staff hiring early on. Despite seeking assistance from staff, he and his business partner needed to fill gaps in their team's capabilities and ensure order completion (Stage 3), resolve technical and delivery failures (Stages 6 and 8) and submit proposals by deadlines (Stages 9 and 12). Additionally, setbacks from staff limitations connected to his ongoing efforts to build team capacity. Regardless, Jeremy reported eventual outcomes during the diary study that helped him feel more optimistic and confident about his business, such as stabilised revenue and surplus savings. The overarching themes

⁴ Days between diary entries calculated from Stage 2 to Stage 15; \bar{x} =9.14, min=3, max=38

throughout this case show connections between challenges and his efforts to fill multiple roles while ensuring business growth and consistent revenue.

7.5.2 Dynamic Response Patterns

Within-diary appraisals show dynamic response patterns for each subjective measure. Stability classifications are grouped based on identifiable response pattern characteristics, including overall valence (positive or negative), degree of variation and frequency of divergences (Table 37). Stable response patterns include minimal variation and infrequent divergences, while unstable patterns show high variation and intermittent or longstanding divergences.

Table 37. Grouping of dynamic response patterns (Case 4)

Jeremy (Case 4)		Valence	Divergence	Variation	Classification Stability
Group 1	Business Progress	Positive (1)	None (0)	Minor (1)	Stable (2)
	Equipped for Business Challenges	Positive (1)	None (0)	Minor (1)	Stable (2)
Group 2	Business Factors Awareness	Positive (1)	Acute (1)	Minor (1)	Stable (5)
	Challenging Business Context	Positive (1)	Acute (1)	High (2)	Stable (6)
	Business-related Stress	Negative (2)	Acute (1)	Minor (1)	Stable (5)
	Business Failing Worry	Positive (1)	Acute (1)	Minor (1)	Stable (5)
Group 3	Rushed Decision-making	Negative (2)	Longstanding (4)	High (2)	Unstable (6)
	Business Control	Positive (1)	Longstanding (4)	High (2)	Unstable (6)
	Business Uncertainty	Negative (2)	Longstanding (4)	High (2)	Unstable (6)

In this case, six subjective measures met Stable criteria (Section 7.5.2.1). Two groups of stable measures were identified. The first group consisted of two appraisals: Business Progress, Equipped for Challenges. Regardless of reported challenges, appraisals on these measures had only minor variation and no negative divergences. The second group consisted of four measures: Factor Awareness, Challenging Context, Business-related Stress and Failure Worry. These dynamic response patterns included acute divergences that corresponded with challenges during the diary study.

The dynamic response patterns for three subjective measures met Unstable criteria (Section 7.5.2.2): Rushed Decisions, Business Control and Business Uncertainty. This group was represented by a longstanding divergence in his appraisals that persisted over multiple stages during the observation period. Explanations are provided separately for each subjective measure in the following sub-sections.

7.5.2.1 Stable Response Patterns

The dynamic response patterns for six subjective measures were classified as Stable due to high continuity in the overall valence in responses.

(1) *No divergence*

This first group consisted of two Stable measures: Business Progress and Feeling Equipped for Challenges. Both presented consistently positive appraisals during the diary study, regardless of reported challenges.

(a) *Business Progress*

Jeremy's overall positive ($f=15$, 100%) appraisals of business progress was represented by consistent *agreement* with the statement, 'I'm pleased with how my business is doing' (Figure 42). The continuity on this measure confirmed his generally stable and positive perception of business progress.



Figure 42. Appraisals of business progress (Case 4)

Appraisals indicated a stable perception that was disconnected from challenges he reported. Explanations were available primarily through his interviews.

Setting performance targets

Jeremy expressed ongoing motivation for himself and business partner to not be involved in the management responsibilities of his business:

We've had a long-term vision for where we'd like to get to with our roles and my role would not involve heavy day-to-day management.

(Jeremy, Initial Interview)

He indicated his desire for no management responsibility in his final interview:

It'd be preferable if I didn't have this management role at all, for the day to day activities. **(Jeremy, Final Interview)**

He clarified an objective for his business to survive without his active involvement:

[My objective] is the business being self-sustaining without my active involvement, that I can just provide strategic direction and benefit from it, as opposed to trying to keep it alive. On the business level, that's my main goal. **(Jeremy, Final Interview)**

In this regard, the extent that his business was 'self-sustaining' and less demanding on his time became evident as Jeremy's main approach to evaluating business progress.

Evaluating performance

In his final interview, Jeremy reported that his business partner had transitioned away from day-to-day tasks. He expressed feeling this as an indicator that his business was more capable of self-sustaining:

Things haven't failed, but they haven't gotten worse or massively better. My business partner is taking a step back on day-to-day tasks which has gone pretty well and makes it feel like it's more of a business capable of standing on its own. That's positive. **(Jeremy, Final Interview)**

Although he felt that basic elements in his business had not changed drastically:

But the bottom line, it's pretty similar, and the nuts and bolts of how things are progressing with the business. **(Jeremy, Final Interview)**

Jeremy expected improvements in his business to require gradual changes:

I'm expecting improvement in the business to be a long, gradual process to get things where we want them to be. If we put out enough opportunities things could accelerate more quickly when we get a big win. **(Jeremy, Final Interview)**

He acknowledged that ‘a big win’ could accelerate his business growth but noted that many of the opportunities he pursued had failed to come through:

It’s nice to have things exceed expectations. We’ve had big opportunities where things could’ve really taken off and not having those things come through is disappointing. *But my expectations were not unrealistically high about things taking off overnight* [emphasis added]. On a practical, day to-day level, I don’t feel disappointed.

(Jeremy, Final Interview)

Despite feelings of disappointment from the opportunities he lost, he indicated his sense of satisfaction at the practical level of running his business:

The gap between where it is and should be, it’s still very dependent on me to the point that if I disappeared for 6 months, it would die. Which means that it’s not an independent business yet. **(Jeremy, Final**

Interview)

However, Jeremy realised that his business was still dependent on him to remain viable. He clarified that his business would not ‘feel real’ if this dependence persisted:

Because as long as things are being done by my business partner and me, essential day-to-day things, not strategic, it doesn’t feel like it’s a real business, just us doing something with some support, as opposed to it being an entity that exists and is capable of doing things on its own.

(Jeremy, Final Interview)

He wanted his business to be capable of handling challenges without his involvement:

When I see things being self-contained within the business, where a full cycle can be pushed through without needing to point out problems, it makes me feel more positive about business progress and potential for standing on its own. **(Jeremy, Final Interview)**

As he perceived steps being taken towards this goal of his business ‘standing on its own,’ he reported feeling more favourable towards his business progress.

(b) Equipped for Business Challenges

Jeremy's overall positive ($f=15$, 100%) appraisals on this measure were represented by his consistent *agreement* with the statement, 'I feel equipped to handle the challenges facing my business' (Figure 43). From Stage 9, increases in his level of agreement became evident, yet continuity in appraisals indicated a generally positive and stable perception of his ability to handle business challenges.

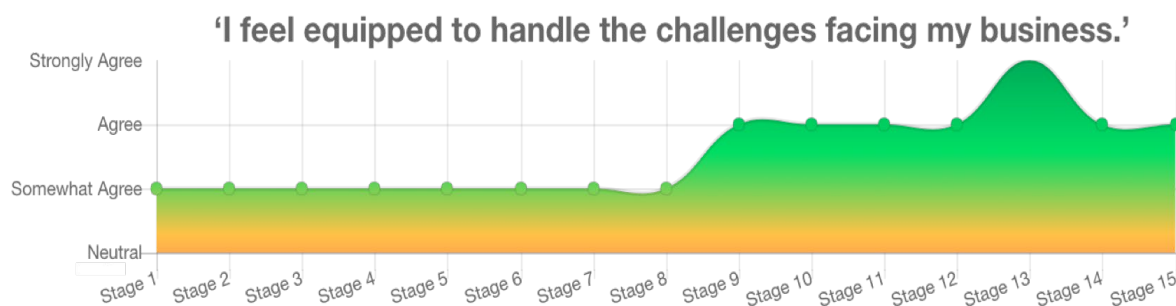


Figure 43. Appraisals of feeling equipped to handle challenges (Case 4)

Overall, his perceptions indicated confidence in his capability to resolve business challenges. Explanations were available primarily through his qualitative interviews.

Drawing on relevant past experience

In reconstructing his business trajectory, he shared how he continued to use his professional expertise to drive the business forward:

[..] stayed consistent is my role providing expertise about social research methods and evaluation. By necessity, even though it's not the thing that I have the most training in, also the combination of technology with social research and evaluation. It's a cutting-edge area. Nobody really has that much background or experience in that, but I have some through research projects I did. I'm the lead expert in methodological issues. **(Jeremy, Initial Interview)**

Jeremy indicated that his expertise had developed while engaged with his business:

Practice of actually implementing a bunch of projects, putting technology in with evaluation to improve practice definitely is making me more of an expert over time. I don't feel like I know it perfectly, but I know it better than other people. **(Jeremy, Initial Interview)**

In this regard, he considered relevant past experiences and personal abilities, but noted his understanding of personal limits that served a practical purpose for his business.

Adapting priorities to changing reality

Jeremy provided an assessment of his business-related skills and training, but suggested that he might need additional skills to facilitate business growth:

I feel I have skills and training but far from all of them. I have social capital, expertise and know-how that will be helpful for getting the business to grow. **(Jeremy, Initial Interview)**

He recognised personal limits in relation to his role in the business and expressed concern about balancing between what his company needed of him and his normal range of preferences:

I don't have the time, will or possibly the right demeanour for full scale sales work, which is probably the thing that is most needed for the business to grow with the increased revenues. *There's the gap that I'm not really able to fill that role for growing new business, is one of my concerns* [emphasis added]. As well, we don't have a satisfactory patch for the fact that I don't have the optimal capacity for expanding into new clients. **(Jeremy, Initial Interview)**

Furthermore, he shared how his experiences as an entrepreneur had thus far interconnected with capabilities of his staff:

It's about staff that we have brought in, their strengths and limitations and then owners, founders. We're the last line of defence. If something doesn't get picked up by someone on staff then it's going to drop, and either I or my co-founder have to catch it before it drops. **(Jeremy, Initial Interview)**

In his final interview, Jeremy made it clear that his awareness of personal limits took time to develop during his entrepreneurial journey:

Maybe one of the issues with the business is its small stings. It's hard to get the full picture of what's going on until it accumulates, whether this is just one off, short-term period or if it's going to be like this continuously [emphasis added]. At a certain point, I'll reach a cut-off and say, 'This is unacceptable, I'm not putting up with this anymore,' when I see that it's not going to be just a short-term thing to get over.

(Jeremy, Final Interview)

He expressed that his personal capabilities interconnected with setting boundaries for his business. In this regard, Jeremy's ability to recognise and set personal limits served a practical purpose for managing his business and calibrating his expectations.

(2) Acute divergences

This second group consisted of four Stable measures: Factor Awareness, Challenging Context, Stress, Failure Worry. These measures had minor variations and acute divergences that corresponded more closely with challenges.

(c) Business Factor Awareness

Jeremy's positive ($f=14$, 93%) appraisals on this measure were represented by agreement with the statement, *'I have accounted for the major issues facing my business'* (Figure 44). Minor variations included one acute, negative divergence at Stages 6. Continuity showed a positive and stable perception of business issues.

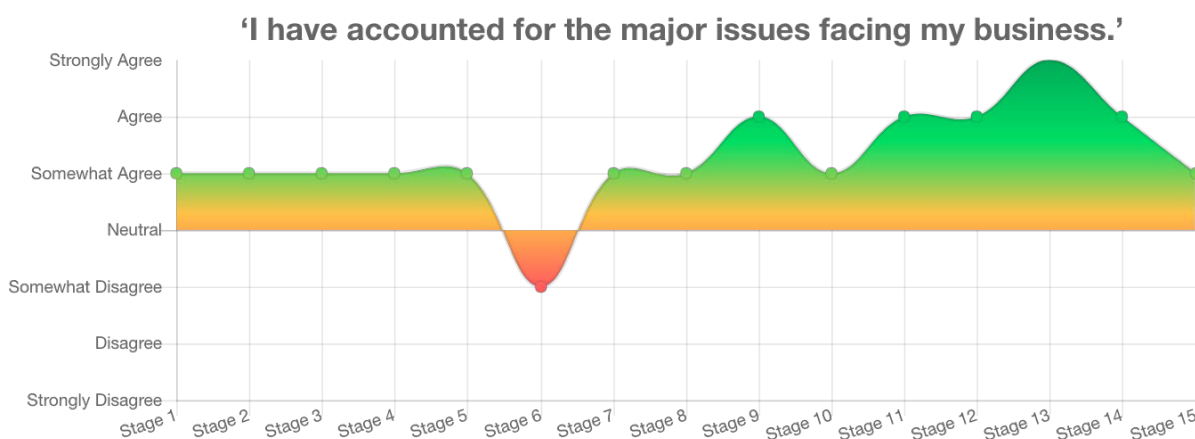


Figure 44. Appraisals of major issues facing business (Case 4)

The negative divergence at **Stage 6** corresponded with a reported challenge that technology failures had disrupted business development opportunities: “Developing new business; failures of our technology in the middle of client walk throughs.” His decision was to seek assistance from technical staff: “I reached out to staff for help on the tech failures, which worked. But problem has recurred three days in a row in client meetings.” His anticipated outcome indicated uncertainty:

I don't know. I'm not able to directly affect this aspect of the business relying on technical staff, who seem incapable of permanently solving the problem. Also, failure of quality assurance staff. **(Stage 6)**

He attributed this challenge to staff failures and felt unable to resolve this challenge by himself. His negative appraisals of Factor Awareness, Control and Uncertainty contrasted with his positive appraisals of Failure Worry, Progress, Equipped for Challenges and Challenging Context. These negative experiences with reliance on staff were foregrounded in his initial interview, indicating a persistent, long-term source of adversity:

The downsides were times when staff let things down. They didn't pick up the ball and then things had to be rescued by myself or my business partner. Sometimes problems became very evident to the client and this made the company look really bad, when the veil was ripped because of failings in the team and inadequate quality assurance or that negative side of things. These stand out to me. **(Jeremy, Initial Interview)**

Drawing on prior experiences, Jeremy shared his sense of dissatisfaction with staff:

I suppose the difficulty in getting staff to pay close attention to quality assurance has been a major issue. It's been across the board. **(Jeremy, Initial Interview)**

As a persistent concern, he expressed frustration and noted reaching personal limits:

There were a whole series of things that I regularly felt fed up about, like quality of communications and delivery of services, and those things have climbed up to a point I'm satisfied with now. After work

from my business partner and many expressions of dissatisfaction from me. **(Jeremy, Final Interview)**

However, he stated his perception of positive changes during the diary study had occurred with his staff and business practices, which he attributed to efforts by him and his business partner. In hindsight, he expressed his perceptions more rationally:

There are many things happen on a day-to-day basis that are unexpected and but none of them have been serious, existential issues for the business. I would say the range of unexpected things happening is within normal parameters. **(Jeremy, Final Interview)**

He reported unexpected events yet stated that he did not perceive occurrences as ‘existential issues’ that threatened his business. This rationalised view indicated *misalignment* with his expressed frustration during the diary study.

(d) Challenging Business Context

Jeremy’s positive ($f=13$, 87%) appraisals on this measure were represented by his *agreement* with the statement, ‘*The current context for my business is particularly challenging*’ (Figure 45). Minor variations were evident including two acute, negative divergence at Stages 2 and 4. However, continuity in his appraisals indicated his generally perception of business context.



Figure 45. Appraisals of challenging business context (Case 4)

Jeremy did not present his business context as challenging, apart from divergences at Stages 2 and 4. He offered explanations for Stage 4 in his diary accounts that further

connected to his final interview. Subsequently at **Stage 5**, Jeremy did not present a challenge, but instead noted a pivotal event and favourable business development.

At **Stage 4**, his reported challenges related to staff requirements and funding proposals:

Making decisions about future staffing requirements. Deciding whether to go for a major funding proposal. Completing two major funding proposals, which are now currently pending. **(Stage 4)**

His decision was to discuss challenges with his business partner:

More strategic level in consultation with business partner, other decisions and challenges addressed with staff. **(Stage 4)**

His anticipated outcome was for successful funding and implementing hiring decisions:

Hopefully proposals will be successful. Our staffing decision now needs to be implemented carefully to ensure we get the right people. **(Stage 4)**

He provided positive appraisals of Business Progress, Factor Awareness, and Feeling Equipped for Challenges but offered negative appraisals of remaining measures.

In his final interview, Jeremy evaluated his business context in relation to business opportunities and pressures within his business:

New opportunities popping up, things being turned down, maybe in surprising ways, but that's to be expected. As long as the incoming revenue exceeds the outgoing costs, then you live to fight another day. **(Jeremy, Final Interview)**

He expressed his general optimism about opportunities for business growth:

There's more opportunities than when we started. The world is moving in the direction of the business. Potential demand is pretty similar but maybe 10% greater [...] quantity of opportunities out there. There's plenty. **(Jeremy, Final Interview)**

He considered his external context positively because of favourable assessment of business opportunities. However, negative appraisals on this measure were evidently connected to specific challenges, as concerns and uncertainty about staffing support.

(e) Business-Related Stress

Jeremy's overall *negative* ($f=13$, 87%) appraisals of business-related stress were represented by his *agreement* with the statement, 'My business makes me feel stressed' (Figure 46). Divergences at Stages 9 and 11 positive shifts in his stress. Continuity in his appraisals showed overall stable and negative perceptions towards business stress.



Figure 46. Appraisals of business-related stress (Case 4)

Explanations were provided in both diary accounts and interviews. Overall, negative experiences reflected longstanding frustration and stress because of unsupportive staff and unpredictable revenue streams. These issues, in particular, were indicated as slowing progress in his business.

At **Stage 9**, he considered a challenge related to his decision on a funding proposal:

Deciding whether to prepare a proposal for funding. **(Stage 9)**

His decision was to identify his available support. While he reported poor support from staff, his business partner was able to help:

I was weighing the level of support I had available against the size of the task. I found that I had fairly weak staff support but my business partner stepped into help get this done. **(Stage 9)**

His anticipated outcome was based on desire to finish the proposal with staff support:

Hopefully we get staff support while the task is primarily taken on by my business partner and me to get everything done in time. **(Stage 9)**

His further explanation indicated his feeling of stress in relation to his inadequate staff support and uncertainty for the underlying reasons:

The remaining stress at the moment comes from inadequate staff support for reasons that are not completely clear. **(Stage 9)**

While he provided negative appraisals of Business Uncertainty and Rushed Decisions, the rest of his appraisals were positive. Following stage, his appraisals of Uncertainty shifted to positive for the remainder of the diary study.

At **Stage 11**, he reported no challenge, but he did offer a further explanation that indicated his satisfaction with business progress:

Things are going well at this point and I can see a positive pathway forward taking shape **(Stage 11)**

Along with a divergence in his appraisals of Stress, he provided positive appraisals of all measures. Following stage, his appraisals of Rushed Decisions shifted to positive for the remainder of the diary study.

In his final interview, Jeremy summarised his overall experience of business-related stress:

Whether I felt any physiological response like in my body from concern... that rarely happens in general for me and it didn't really come up very much for the business. Because even if there's a bad patch or something, it's all within normal parameters of the range of things that one would expect. **(Jeremy, Final Interview)**

In hindsight, he provided a rational assessment of minimal impacts on himself and his business from the challenges he faced:

It didn't feel like a serious threat and therefore I didn't feel stressed. What would make me feel stressed about is the prospect of not being able to pay staff, or having the revenue hitting zero and not being able to pay staff. **(Jeremy, Final Interview)**

In this regard, the stress that Jeremy felt was from his concern about potential consequences for his business. While he provided negative appraisals of stress, these divergences apparently connected to a stimulating effect of pressure. Overall, his assessment of staff support was the main factor in his appraisals of stress.

(f) Business Failure Worry

Jeremy's positive ($f=12$, 80%) appraisals on this measure were represented by his *agreement* with the statement, 'I worry about my business failing' (Figure 47). His initially negative ($f=3$, 20%) appraisals subsided by Stage 5 with appraisals shifting to positive for the remainder of diary study. This indicated a relatively short-term set of concerns in earlier stages. Overall, consistency in his appraisals indicated stable perception of worry about business failure.



Figure 47. Appraisals of business failure worry (Case 4)

At **Stage 3**, Jeremy considered multiple challenges that occurred frequently during the diary study:

New business development, preparing a grant application, hiring decision, ensuring order completion. **(Stage 3)**

His decision was to seek information:

Based on my best judgment, listening to staff recommendations and conferring with business partner. **(Stage 3)**

He provided positive appraisals of Business Progress, Factor Awareness and Equipped for Challenges, alongside negative appraisals on remaining measures.

At **Stage 4**, his appraisal related to staff requirements and funding proposals, discussed further under Challenging Business Context. Following this stage, his appraisals of Business Failure Worry shifted to positive for the remainder of study. Indeed, Jeremy did not report a challenge at **Stage 5** but he did offer an explanation:

Important deal putting us on sounder footing. **(Stage 5)**

This indicated a pivotal event for his business and positive business development. He provided negative appraisals of Stress, Rushed Decisions and Business Uncertainty.

In his final interview, Jeremy reflected on this longstanding change to new stability in business revenue:

That was probably that the revenue's stabilised. Where it was clear that we could bring in a decent amount, enough to cover costs each month. Whereas, there was a little period when things were looking shaky on the combination of different revenue streams not drawing out. From that point, it was always a steady stream of revenue. That's reassuring. **(Jeremy, Final Interview)**

According to Jeremy, worry about his business had subsided after winning a key contract that provided a 'surplus' and sense of financial stability for the business:

We've been at least a couple of months in surplus being able to keep the business going if we had no money coming in. But we've consistently had at least money coming in. It hasn't felt like we're under serious threat. **(Jeremy, Final Interview)**

He indicated changes in his appraisals reflected optimism about business survival:

When I was feeling more optimistic that it would not fail, my answers reflected that. I just took note that it seemed my concerns about a complete collapse had diminished, even if there were still day-to-day issues. (**Jeremy, Final Interview**)

In this regard, Jeremy presented an emerging business experience through his appraisals of Business Failure Worry, as pressures and worry he felt from earlier stages subsided with after gaining confidence that his business would survive.

7.5.2.2 Unstable Response Patterns

The dynamic response patterns for three subjective measures were classified as Unstable due to longstanding divergences.

(3) Longstanding Divergences

This third group consisted of three Unstable measures: Rushed Decisions, Business Control and Business Uncertainty.

(f) Rushed Decisions

Jeremy's overall negative ($f=11$, 73%) appraisals on this measure were represented by *agreement* with the statement, 'My business decision making tends to be rushed' (Figure 48). Following Stage 10, his appraisals shifted to positive ($f=4$, 27%) and then returned to negative at Stage 15. This longstanding divergence indicated a lack of continuity and unstable perception of rushed decisions.



Figure 48. Appraisals of rushed business decisions (Case 4)

Explanations for this dynamic response pattern were available through diary accounts while general views were available in his interviews. The following stages each presented challenges and positive appraisals:

1. Submitting a proposal by the deadline (**Stage 12**)
2. Business development and efforts to extend sales (**Stage 13**)

At **Stage 12**, he reported a challenge of submitting a proposal by the deadline. His decided to seek assistance from staff but experienced their support as inadequate:

I tried to reach out early to get the team involved in getting most of the work done well in advance of the deadline. Nobody pick up the ball, thus leaving it to me to do the legwork up until the day of the deadline when there was broader team engagement (**Stage 12**)

While he was able to submit the proposal, dissatisfaction from this experience prompted his anticipation of necessary changes in his team's capacity:

Ultimately the proposal got submitted on time, but I'm hoping we can build different team capacity so that this does not fall to me in the same way in the future (**Stage 12**)

He indicated a desire to avoid similar outcomes and offered further explanation for negative impacts from this lack of involvement from his staff, such as his feelings of stress and frustration:

The lack of team support causes stress, and the lack of responses to my early requests causes me to feel frustrated. We are now recruiting people with different skill sets so hopefully this problem will be mitigated in the future (**Stage 12**)

His recognition that changes were necessary indicated both intentions and efforts to recalibrate the 'skill sets' in his business. At this stage, he provided positive appraisals on all measures, except for Stress.

At **Stage 13**, he reported a challenge related to business development and efforts to extend sales into a new sector. His decision was to hold consultation meetings:

[...] to identify what is required and they have in turn gained buy-in from a funder/investor to jointly develop the product **(Stage 13)**

His anticipated outcome was that the project would move forward:

[...] This piece of business development will proceed as envisioned, but on a slower timescale as the key broker/stakeholder is keen to do a more extensive piece of consultation prior to diving into the main project **(Stage 13)**

His further explanation indicated feelings of stress from previous experiences:

While everything is largely going well, there are still sources of concern and stress, mainly due to a combination of not having the full ideal team in place for running the company and having ongoing limitations in the technology we're developing, where bugs or limitations keep cropping up. I guess both of these issues will be with us forever to some degree **(Stage 13)**

He expressed his discontent with these issues and a resigned acceptance that these issues would persist. All of his appraisals were positive, except for Stress.

This particular range of challenges was foregrounded during Jeremy's initial interview, including a lack of technical experience (see Equipped for Challenges) compared to his business partner. He considered that distinct perspectives helped them address a range business challenges:

We're probably going to be more concerned about different aspects even though we both know the other aspects are super important, the parts that we're not actively looking at. There's a complementary set of distinct concerns that probably overlap but are pretty distinct. **(Jeremy, Initial Interview)**

Jeremy felt their perspectives on business issues were crucial in strategic decisions:

We need to make the big decisions together and no one else really has the overview of the range of concerns that need to be considered for strategic decision-making. **(Jeremy, Initial Interview)**

While he also was deliberate about overall direction, his appraisals apparently connected to efforts to respond promptly to day-to-day needs of the business.

(h) Business Control

Jeremy's overall positive ($f=9$, 64%) appraisals on this measure were represented by *disagreement* with the statement, 'My business feels out of control' (Figure 49). However, his appraisals were mostly negative ($f=5$, 35%) until Stage 6, followed by a positive shift for the remainder of the study. This lack of continuity indicated his unstable perception of business control.



Figure 49. Appraisals of business control (Case 4)

Explanations were provided in his diary study and interviews. Jeremy indicated that early entrepreneurial experiences of unsupportive staff and unpredictable revenue streams evidently slowed progress in his business. However, he expressed limitations in staff capability and reliance on staff had negative effects on his business control.

Inadequate staff support

In his initial interview, he recognised that was capable of influencing change within his business, but he was dependent on his staff to do the work:

I can influence change within my business to a very high extent. The main limitations are relying on other people. I can request and hope that things will get done quickly, but sometimes I get forgotten or dropped. Sometimes I feel I have an effect and other times like I'm shouting into the wind. **(Jeremy, Initial Interview)**

He recognised reliance on staff capability connected to Time as an ongoing constraint:

In practice, staff have power because they either do things or don't... they either implement or don't... and I or my business partner don't have time to do everything ourselves. In many ways, we are at the mercy of what staff do. It's not possible for us to do it all at this point, there's just not enough time. **(Jeremy, Initial Interview)**

He observed the limit of how much he and his business partner could do in a given timeframe. Thus, limitations in staff capability had an impact on his business control.

Uncertainty with funding proposals

He considered what energies might need to be exerted to move his business in a different direction, in order to change the natural course:

It feels like it's more about things that are outside of my or the business' control. We're putting out proposals, we're giving ourselves the chance for good things to happen, but we keep having the bigger opportunities get turned down by the people. **(Jeremy, Final Interview)**

He noted that the larger opportunities kept getting turned down but suggested that these final decisions were outside of his control.

All of the big proposals that we've done have been declined so far. If one of those came through, which is really not in our control, that would fundamentally change things in a big way. That doesn't happen, and things continue roughly, business as usual. **(Jeremy, Final Interview)**

Rather, he stated his intention to submit proposals to increase the chances of approval with otherwise unpredictable revenue streams. These negative experiences and perceptions were evidently connected to his sense of business uncertainty as a result of unsupportive staff and unpredictable revenue.

(i) Business Uncertainty

Jeremy's appraisals of business uncertainty were mixed, represented by variation in his level of *agreement* with the statement, *'My business faces a high degree of uncertainty'* (Figure 50). His baseline appraisal started as positive, but changed to

negative ($f=8$, 53%) at Stage 2 until Stage 9. His appraisals then shifted back to positive ($f=7$, 47%) at Stage 10 for the remainder of the diary study. This lack of continuity indicated his unstable perception of business uncertainty.

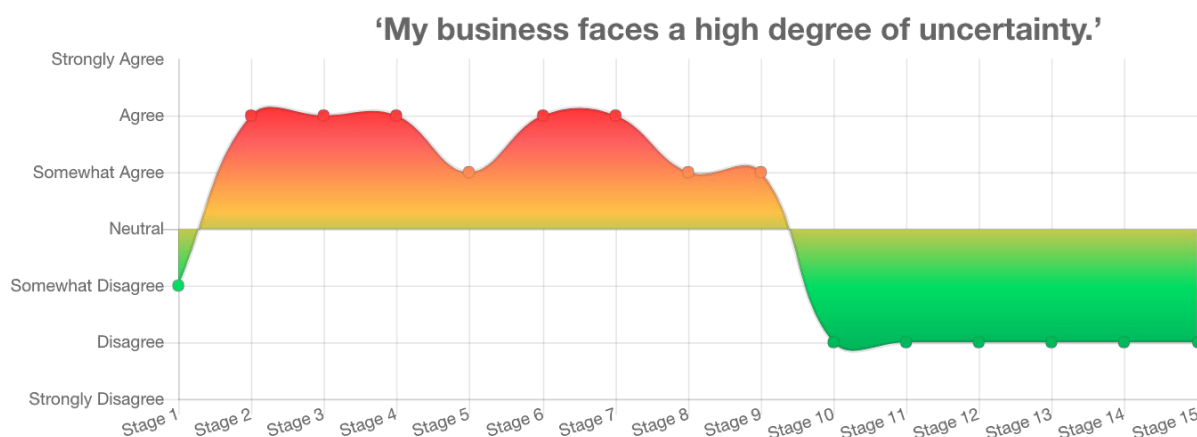


Figure 50. Appraisals of business uncertainty (Case 4)

Explanations were available through his diary accounts and interviews. The following stages had challenges and positive appraisals:

1. Business development and collaboration on a funding proposal (**Stage 7**)
2. Staff inability to deliver work (**Stage 8**)
3. Inadequate staff support (**Stage 10**)

At **Stage 7**, Jeremy reported a challenge with business development and collaboration on a funding proposal. In response to this challenge, he decided to take direct action in brokering collaboration:

Yes, I've suggested an equal collaboration between both organisations and explicitly communicated this suggestion. However, I'm not sure if either of them will ultimately accept what I'm suggesting, and time is running short before the deadline to make any adjustments (**Stage 7**)

He expressed uncertainty about anticipated outcomes with the collaboration: "Really unsure - hoping everyone gets on board." His further explanation indicated a general feeling of stress in relation to the business: "My business is probably making me feel stressed more than relaxed." He provided negative appraisals of Stress, Uncertainty and Rushed Decisions, which indicated an alignment with this diary account. His remaining appraisals were positive.

At **Stage 8**, he reported a challenge with his staff inability to deliver work: “There was a slowdown in the delivery on existing contracts by operations staff.” His decision was to increase staffing, seek further information, and reduce his efforts in sales. He expressed uncertainty about an anticipated outcome but hope that slowing down his efforts in sales would help. He provided the same appraisals at Stage 7. In his initial interview, Jeremy indicated that failures resulted from inadequate support:

Things become evident when there are failures and let downs. Then, when doing the after-action review to figure out what went wrong, either you find a reasonable explanation underneath it or you find a deeply concerning pattern or attitude. **(Jeremy, Initial Interview)**

In his final interview, he provided a retrospective account of his stress during the study:

The other source of stress would be if I felt there was a gap between what we’ve promised to do and what we’re delivering, and if I felt like I didn’t have adequate support to close that gap. That’s possible I’d feel stressed in that scenario. Probably that’s what was happening at the time, when I felt like we needed to get something done and it just wasn’t getting done. **(Jeremy, Final Interview)**

He indicated a negative experience of stress in relation to *potential* consequences for his business when his staff failed to deliver on business commitments.

At **Stage 10**, he did not report a challenge, although he did offer further explanation indicating continuation of inadequate staff support, along with a more positive sense of business progress:

Things are going well overall, although there is still a need to get more support from staff to ensure everything runs smoothly. **(Stage 10)**

His appraisals of uncertainty shifted to positive for the remainder of the diary study, but he still provided negative appraisals of Stress and Rushed Decisions. In his final interview, he expressed uncertainty about issues that could impact his business:

The things that have to happen, I do remember feeling concerned about them not happening properly and that could make me feel stressed because it’s the upstream vision of not having the money to pay the staff. **(Jeremy, Final Interview)**

He felt concern for sustaining his business and uncertainty about external and internal factors that were unpredictable, but relevant to his business decisions.

7.6 Chapter Summary

Jeremy's narrative highlights his entrepreneurial development as he acted to facilitate his financial security and reach his performance goal of a self-sustaining enterprise. In his interviews, he displayed with a strong sense of personal capability and professional expertise. He indicated decisions and actions that were growth-oriented as he put active time and effort into multiple revenue streams and funding opportunities. Despite having an established business infrastructure and a business partner and staff, Jeremy's prior experiences included unsupportive responses from staff, failures in technology development and unpredictable revenue streams. These evidently slowed business progress and served as overarching connections to the entrepreneurial challenges he faced. While providing positive appraisals of progress towards his business goals, he frequently expressed his ongoing experience of unreliable staff support and financial pressure.

Indeed, his response to specific challenges became evident when he felt staff were otherwise failing to give him adequate assistance. From his concerns, he expressed heightened frustration and stress about the likelihood or risk for future failures, and rushed decisions to address daily challenges. He highlighted discussion, deliberation and strategic decisions with his business partner to identify patterns, causes and possible solutions. The underlying connection between reported challenges and changes in his appraisals indicated *misalignment* between his assessment of opportunities and capability of staff to facilitate his desired outcomes. This was a consistent theme throughout this case as a background factor that re-emerged when failures became salient but diminished when he saw improvements to internal systems and business practices and more staff engagement.

Table 38. Diary study longitudinal measures of subjective assessments (Case 4)

	Stages	Business Challenges	Business Progress	Challenging Business Context (N)	Business Uncertainty (N)	Rushed Decisions (N)	Business Factors Awareness	Business Control (N)	Business Failing Worry (N)	Equipped for Business Challenges	Business-related Stress (N)
Baseline	Stage 1		Agree	Somewhat Disagree	Somewhat Disagree	Strongly Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree
Repeated Measures	Stage 2	No	Agree	Somewhat Agree	Agree	Strongly Agree	Somewhat Agree	Somewhat Agree	Disagree	Somewhat Agree	Somewhat Agree
	Stage 3	Yes	Agree	Somewhat Disagree	Agree	Strongly Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree
	Stage 4	Yes	Agree	Somewhat Agree	Agree	Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Agree
	Stage 5	No	Agree	Somewhat Disagree	Somewhat Agree	Agree	Somewhat Agree	Disagree	Somewhat Disagree	Somewhat Agree	Agree
	Stage 6	Yes	Agree	Disagree	Agree	Agree	Somewhat Disagree	Somewhat Agree	Disagree	Somewhat Agree	Somewhat Agree
	Stage 7	Yes	Agree	Disagree	Agree	Strongly Agree	Somewhat Agree	Somewhat Disagree	Disagree	Somewhat Agree	Somewhat Agree
	Stage 8	Yes	Agree	Somewhat Disagree	Somewhat Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Somewhat Agree	Somewhat Agree
	Stage 9	Yes	Strongly Agree	Disagree	Somewhat Agree	Somewhat Agree	Agree	Disagree	Strongly Disagree	Agree	Somewhat Disagree
	Stage 10	No	Strongly Agree	Disagree	Disagree	Somewhat Agree	Somewhat Agree	Disagree	Disagree	Agree	Somewhat Agree
	Stage 11	No	Strongly Agree	Strongly Disagree	Disagree	Somewhat Disagree	Agree	Disagree	Strongly Disagree	Agree	Disagree
	Stage 12	Yes	Agree	Disagree	Disagree	Disagree	Agree	Disagree	Strongly Disagree	Agree	Somewhat Agree
	Stage 13	Yes	Strongly Agree	Strongly Disagree	Disagree	Disagree	Strongly Agree	Strongly Disagree	Strongly Disagree	Strongly Agree	Somewhat Agree
	Stage 14	No	Agree	Disagree	Disagree	Somewhat Disagree	Agree		Strongly Disagree	Agree	Somewhat Agree
	Stage 15	Yes	Agree	Disagree	Disagree	Somewhat Agree	Somewhat Agree	Disagree	Strongly Disagree	Agree	Agree

Table 39. Business challenges by longitudinal stage (Case 4)

	Short Name	Business Challenges	Challenges Addressed	Business Decisions	Anticipated Outcomes	Further Explanation
Repeated Measures	Stage 2	No				
	Stage 3	Yes	New business development; Preparing a grant application; hiring decision; ensuring order completion	Based on my best judgment, listening to staff recommendations and conferring with business partner.		
	Stage 4	Yes	Making decisions about future staffing requirements. Deciding whether to go for a major funding proposal. Completing two major funding proposals, which are now currently pending.	Some more strategic level in consultation with business partner, other decisions and challenges addressed with staff.	Hopefully the proposals will be successful. The staffing decision now needs to be implemented carefully to ensure we get the right people.	
	Stage 5	No				Important deal putting us on sounder footing.
	Stage 6	Yes	Developing new business; failures of our technology in the middle of client walk throughs	I reached out to staff for help on the tech failures, which worked. But problem has recurred three days in a row in client meetings	I don't know. Am not able to directly affect this aspect of the business - relying on technical staff who seem incapable of permanently solving the problem at this point. Also a failure of quality assurance staff.	
	Stage 7	Yes	Working out a collaboration with partners in another country to put in a proposal to co-develop a product with UK government support	Yes - I have suggested an equal collaboration between both organisations and explicitly communicated this suggestion. However, I'm not sure if either of them will ultimately accept what I'm suggesting and time is running short before the deadline to make any adjustments	Really unsure - hoping everyone gets on board	My business is probably making me feel stressed more than relaxed
	Stage 8	Yes	There was a slow down in the delivery on existing contracts by operations staff.	Decided to increase staffing and seek further information about the reasons for the slow down. Also decided to slow down on further client acquisition.	It is still unclear what will happen with the staff. Hopefully the slow down in new business will give them the opportunity to catch up.	
	Stage 9	Yes	Deciding whether to prepare a proposal for funding	I was weighing the level of support I had available against the size of the task. I found that I had fairly weak staff support but my business partner stepped into help get this done.	Hopefully we can still get some staff support while the task is primarily taken on by my business partner and me. Hopefully we can get everything done in time.	The remaining stress at the moment comes from inadequate staff support for reasons that are not completely clear.
	Stage 10	No				Things are going well overall, although there is still a need to get more support from staff to ensure everything runs smoothly
	Stage 11	No				Things are going well at this point and I can see a positive pathway forward taking shape .
	Stage 12	Yes	We had a big proposal that we needed to get submitted ahead of the deadline.	I tried to reach out early to get the team involved in getting most of the work done well in advance of the deadline. Unfortunately, nobody stepped up to pick up the ball, thus leaving it to me to do the legwork up until the day of the deadline when there was broader team engagement.	Ultimately the proposal got submitted on time, but I am hoping that we can build different capacity in the team so that this kind of thing does not fall to me in the same way in the future.	The lack of team support causes stress, and the lack of responses to my early requests causes me to feel frustrated. We are now recruiting some people with different skillsets so hopefully this problem will be mitigated in future.
	Stage 13	Yes	Business development for an extension of our existing work into a new sector with new technological features / capacities.	I have had consultation meetings with a key stakeholder/broker in the sector to identify what is required, and they have in turn gained buyin from a funder/investor to jointly develop the product.	It looks like this piece of business development will proceed as envisioned, but on a slower timescale as the key broker/stakeholder is keen to do a more extensive piece of consultation prior to diving into the main project and product development work.	While everything is largely going well, there are still sources of concern and stress, mainly due to a combination of not having the full ideal team in place for running the company and having ongoing limitations in the technology we are developing, where there are bugs or limitations that keep cropping up. I guess both of these issues will be with us forever to at least some degree though...
	Stage 14	No				
	Stage 15	Yes	Role of a former staff member in future. She may be in a position to be a future client, so we discussed how we might collaborate in future	Take a non-committal approach while highlighting specific ways we might be able to work together in future	Unclear but hopefully will be a useful long term contact	

CHAPTER 8: CASE STUDY 5 (ANDREW)

8.1 Introduction

This chapter presents the individual-level longitudinal results for ‘Andrew’. These results draw on the full range of empirical data available, including the pre-diary (initial) questionnaire and qualitative interview, the diary study (21 stages) and the post-diary (final) qualitative interview. Data have been analysed inductively, as outlined under 3.6 Data Analysis Methods.

8.2 Personal Background

Andrew is a sole proprietor and founder of a hardware company specialising in technology devices for electric guitars to enhance the sound. He is a Scottish white male in his late thirties living in a large city in Scotland (United Kingdom). He has completed a postgraduate (PhD) degree in Italian Literature, which he has held for 13 years. He had been employed as a research administrator at a University, also in Scotland, but lost this employment less than a year prior. He attributes his loss of employment to economic uncertainty around ‘Brexit’ in 2016. Following this unexpected change in his employment, he decided to start his first entrepreneurial endeavour out of necessity, without any substantive education, background or skills in business prior to his start-up. He did not intend to become an entrepreneur, but by the time of his initial interview, Andrew had been working full-time for ten months in his entrepreneurial endeavour. He had patented his device and began working towards manufacturing and commercialisation, both salient business challenges during this study. His longstanding concerns related to financial security and further expressed an increasing pressure to finding sources of revenue. Andrew has a high personal stake in the success of his business and is actively involved in day-to-day business decisions, as seen in Table 40.

Table 40. Participant characteristics (Case 5)

	Question	Response
Selection Criteria	Active in Starting Company	Yes
	Tech Startup Perception	Unsure
	Innovation to build	Yes
	Consent to participate	Yes
Active Involvement	Personal Stake	Strongly Agree
	Business Decisions	Strongly Agree
	Operations	Strongly Agree
Busines Information	Primary Industry	Creative
	Specialist Technology	Guitar Instrument Device
	Outside Country of Residence	No
	Country of Residence	United Kingdom
	Industry Experience	5 years
	Active in Business	1 year
	Hours per week of work	60
	Current Company Role	Founder/Co-founder
	Co-founder/Business Partner	No
	Personal Information	Gender
Age		30-39
Spouse/Partner		Yes, I have a spouse/partner (wife/husband, girlfriend/boyfriend, etc)
Education Level		Postgraduate Degree / PhD
PhD Subject Areas		Humanities, Italian Literature

8.3 Entrepreneurial orientation

In his initial questionnaire, Andrew associated ‘entrepreneurship’ with *risk, freedom, uncertainty and excitement* and *risk-taking* as the salient idea of being an ‘entrepreneur’ (Table 41).

Table 41. Baseline for subjective appraisals of entrepreneurship (Case 5)

	Short name	Question	Response
Baseline Perceptions	General	In general, what comes to mind when you think of 'Entrepreneurship'?	Risk, freedom, uncertainty, excitement.
	Being an 'Entrepreneur'	What comes to mind when you think of being an 'Entrepreneur'?	Taking chances with time and money.

Andrew had not received formal education or training in business, nor did he intend to be an entrepreneur. He highlighted the impetus for his entrepreneurial trajectory as barriers in his pre-entrepreneurship workplace, negative feelings about his work situation, and loss of employment (see 8.4 Catalyst for Change). In reconstructing this trajectory, Andrew reported his personal motivation to gain a sense of freedom and independence in his work:

I needed to do something for myself. It's a necessity. I'm hoping to be one of those people that say, 'that was the best thing that ever happened to me.' But we'll see. **(Andrew, Initial Interview)**

He indicated his hopefulness and eventually recognised benefits from embracing his personal experiences, yet expressed negative feelings about his pre-entrepreneurial employment:

I don't even know where I got the idea that to be productive you have to be seen by someone who is paid more than you. That's something I struggle with and actually fundamentally upsets me. It stresses me. **(Andrew, Initial Interview)**

He reflected on his previous employment experience against the backdrop of management oversight and identified personal limitations as an administrator that eventually became evident:

Things I was famously bad at as administrator was keeping numbers on a spreadsheet for someone that would never look at. It's a purposeless task. Or what seemed to me as a purposeless task. In some ways, that's my downfall as an employee, because I'm not particularly good at that. **(Andrew, Initial Interview)**

His employment experience appeared to negatively influence his self-perception and his assessment remained consistent throughout the diary study.

In his final interview, he attributed declines in his employment to a personal struggle with 'purposeless' and 'boring' tasks:

I used to work for bosses who told me I'm useful to have around when it comes to ideas. But I'm completely useless when it's time to do spreadsheets. It's not because I don't care, I'm just rubbish at it. Now if it's exciting I can get it done. When it's risky it's fine but when it gets boring, I don't know if I can stick around at that. **(Andrew, Final Interview)**

As he reflected on his previous work experience, he reasoned that missing the mark was about being poorly equipped for work as an administrator. He indicated recognition of personal characteristics that were aligned with his baseline perception of 'entrepreneurship', such as a propensity towards risk-taking and difficulty staying committed to work he did not find exciting:

Yeah, I guess I'm an entrepreneur. **(Andrew, Final Interview)**

Through his entrepreneurial experiences, he indicated a proactive orientation to engage with new ideas and willingness to take on risk and try new and uncertain markets. Despite the uncertainty and risk of extending beyond his initial abilities and comfort zone, Andrew was able to tolerate ambiguity while pursuing his financial and lifestyle goals through his entrepreneurial endeavour.

8.4 Catalyst for Change

Andrew's personal background included many years as a musician and this experience connects to the device for guitars he chose to develop. His trajectory into entrepreneurship followed a sudden loss of pre-entrepreneurial employment as a research administrator. These experiences became relevant as he considered his idea to be an alternative to employment:

I had the idea of making something. I was already testing the idea that became the product by this point but losing my job basically pushed me forward because suddenly this is my best chance of getting somewhere. I didn't have anything else. **(Andrew, Initial Interview)**

He identified his product idea approached several Scottish institutions⁵ to obtain direction and guidance, which included developing his prototype and business plans, and projecting his sales. Help from a Scottish university accelerated design, testing and development of his first prototype:

We tested the product [...] and then in a short space of time I had something I could prove to someone and get prototypes. That was pretty sweet, nice experience. **(Andrew, Initial Interview)**

He decided to commit his time and resources after developing this prototype, he reported specific business challenges, including finding manufacturers who were interested:

Hardest thing was finding someone to make prototypes for me. This actually took up quite a lot of time. We had drawings [that] were pretty good. You could just make prototypes on them. **(Andrew, Initial Interview)**

His changed his intention to manufacture within Europe due to high quotes and lack of interest:

People were quoting me £3,000 for one and others were just not interested. I found that quite frustrating because I was wanted to make this in the European Economic Area. Eventually it got made for \$20 each in China. **(Andrew, Initial Interview)**

By his initial interview, his attention had shifted to his difficult financial position. He attributed his circumstance to committing financial resources to business expenses:

I've run out now. I had the start-up money but it all went on prototyping and area marketing and then all those things. I've got nowhere else to turn. **(Andrew, Initial Interview)**

⁵ Business Gateway, University of Aberdeen Business School, Chamber of Commerce, Scottish Investment Bank

His struggle to achieve financial stability was evident as his most substantial business challenge:

Things are extremely tough. I don't have enough money to do anything. I realised this week that it's starting to seriously affect my health because my [medical condition] is really bad just now. That's due to simply not being able to afford good food. I'm eating instant noodles.

(Andrew, Initial Interview)

With this recognition, he expressed the severity of his personal situation and stated his strong desire for an improvement in the immediate future:

I need to find money soon and start getting a salary that's enough to cover laundry payments, rent and mortgage and buy decent food. The sooner we get to market the better, but at the moment it's trying to find financing to fund living expenses and production runs and marketing.

(Andrew, Initial Interview)

Andrew reported business and personal challenges and considered commercialisation activities necessary for resolving his current circumstances. He recognised the likelihood or risk of his situation deteriorating without sales or alternative sources of funding for his business. In this way, Andrew's narrative as an entrepreneur highlights his development as he took actions to address personal limitations and challenges in his company to reclaim financial stability.

8.5 Within-Diary Variation

During the diary study, subjective appraisals were repeated longitudinally (21 stages). These subjective measures were first taken as a baseline in the initial questionnaire, prior to the initial interview and diary study (Table 42).

Table 42. Baseline for repeated subjective appraisals (Case 5)

	Question	Short name	Response
Repeated Measures Baseline	<i>'I am pleased with how my business is doing.'</i>	Business Progress	Somewhat Agree
	<i>'The current context for my business is particularly challenging.'</i>	Business Context	Neutral
	<i>'My business faces a high degree of uncertainty.'</i>	Business Uncertainty	Agree
	<i>'My business decision making tends to be rushed.'</i>	Rushed Decisions	Somewhat Disagree
	<i>'I have accounted for the major issues facing my business.'</i>	Business Factors Awareness	Somewhat Agree
	<i>'My business feels out of control.'</i>	Business Control	Somewhat Disagree
	<i>'I worry about my business failing.'</i>	Business Failure Worry	Somewhat Agree
	<i>'I feel equipped to handle the challenges facing my business.'</i>	Equipped for Challenges	Somewhat Agree
	<i>'My business makes me feel stressed.'</i>	Business-related Stress	Somewhat Disagree
	Further Explanation	Despite uncertainty and a lack of cash - and no salary for 8 months - I feel less stressed than when I was as a university employee. I'm in control of my life now.	

The diary study in this case lasted for 72 calendar days, with each stage representing approximately 4 calendar days.⁶ An overview for all subjective measures and diary stages for this case are presented after the Chapter Summary, as displayed in Table 44.

8.5.1 Situation-specific Challenges

Andrew reported a range of business challenges throughout the diary study phase of the research (10 stages, 48%; see Table 45). These challenges were primarily indicated as financially-oriented, including projecting sales (Stage 2), identifying alternative funding sources (Stage 6), securing financing (Stages 12 & 21), and acquiring pre-orders (Stage 20) and investment (Stage 21). The situation-specific challenges corresponded with various decisions on manufacturing and product design (Stages 5 & 19), distribution (Stages 4 & 14) and business development (Stages 20 & 21). In an intermediary timeframe during the diary study, Andrew reported substantial impacts from increased financial pressure on his personal life outside of his business (Stages 8-10) and subsequently personal difficulties that then impacted his business (Stages 11 & 12). Each of these challenges corresponded with Andrew's efforts to limit

⁶ Days between diary entries calculated from Stage 2 to Stage 21; \bar{x} =3.60, min=3, max=6

negative impacts on his personal life and business. He reported eventual outcomes that helped him recover from his difficult situation included raising money from friends (Stage 12), getting his first pre-order sale (Stage 20) and bringing on a business partner (Stage 21). The overarching themes throughout this case connect between the challenges to produce revenue, increasing awareness of personal limits and his efforts to gain further business-related skills. His business was helped substantially by formal and informal direction, guidance and reassurance.

8.5.2 Dynamic Response Patterns

Within-diary appraisals show dynamic response patterns for each subjective measure. Stability classifications are grouped based on identifiable classifications, including overall valence, variation and frequency of divergences (Table 43). Stable response patterns include minimal variation and infrequent divergences, while unstable patterns showed high variation and intermittent or longstanding divergences.

Table 43. Grouping of within-diary response patterns (Case 5)

Andrew (Case 5)		Valence	Divergence	Variation	Stability Classification
Group 1	Business Uncertainty	Negative (2)	None (0)	High (2)	Stable (3)
Group 2	Rushed Decision-making	Positive (1)	Acute (1)	Minor (1)	Stable (5)
	Business Failing Worry	Negative (2)	Acute (1)	High (2)	Stable (6)
	Challenging Business Context	Negative (2)	Acute (1)	High (2)	Stable (6)
	Equipped for Business Challenges	Positive (1)	Acute (1)	High (2)	Stable (6)
	Business Factors Awareness	Positive (1)	Acute (1)	High (2)	Stable (6)
Group 3	Business-related Stress	Negative (2)	Longstanding (4)	High (2)	Unstable (12)
	Business Progress	Positive (1)	Longstanding (4)	High (2)	Unstable (12)
	Business Control	Mixed (4)	Longstanding (4)	High (2)	Unstable (12)

The dynamic response patterns for five subjective measures met Stable. Two groups of stable measures were identified. The first group consisted of one stable measure: Business Uncertainty. The second group consisted of five measures: Rushed Decisions, Failure Worry, Challenging Business Context, Equipped for Challenges, and Factor Awareness. Explanations for stability on these measures were available primarily through his interviews. Dynamic response patterns for three subjective

measures met Unstable criteria: Business Progress, Business Control and Business-related Stress. This third group was represented by longstanding changes in his responses over multiple stages.

8.5.2.1 Stable Response Patterns

The dynamic response patterns for four subjective measures were classified as Stable during the diary study due to continuity in the overall valence in his responses.

(1) *No divergences*

This first group consisted of one Stable measure: Business Uncertainty. This was a consistently negative appraisals regardless of presented challenges. Explanations for stability on this measure was available primarily through interviews.

(a) *Business Uncertainty*

Andrew reported overall negative ($f=20$, 95%) appraisals of uncertainty were represented by his *agreement* with the statement, ‘*My business faces a high degree of uncertainty*’ (Figure 51). His appraisals were consistently negative. Despite high variation during the diary study, the overall continuity of his appraisals indicated a stable perception of business uncertainty.

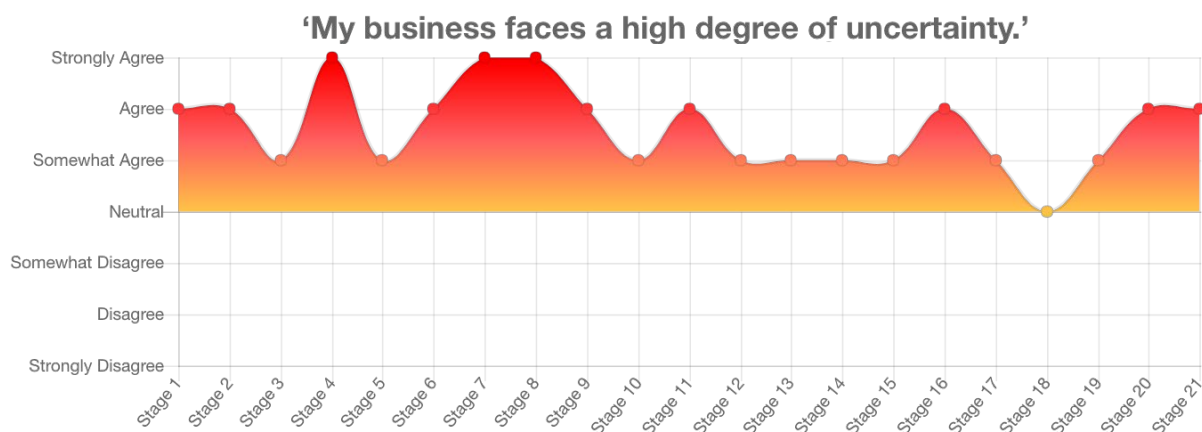


Figure 51. Appraisals of business uncertainty (Case 5)

Explanations were provided in his diary accounts and interviews. Overall, his uncertainty connected with longstanding and persistent financial concerns.

At **Stage 1**, Andrew offered a relevant explanation for his longstanding perception of uncertainty that he revealed prior to commencing the diary study:

Despite uncertainty and a lack of cash - and no salary for 8 months - I feel less stressed than I was as a university employee. I'm in control of my life now. **(Stage 1)**

In subsequent stages, fluctuations on this measure indicated situations when he felt more concerned about a 'lack of cash', including both an acute awareness (Stage 4) and a progressive build up that nearly resulted in business failure (Stages 6-9).

In his final interview, he provided further detail about this longstanding challenge in his business, which he had engaged with from earlier on:

Everything except cash flow is going really well and cash flow [...] is going to kill us or not kill us. That's not surprise - that's what I've always known. Knowing that and taking steps towards mitigating that, it doesn't mean you can solve it. **(Andrew, Final Interview)**

He clarified his awareness that financial problems would negatively impact his business and expressed uncertainty about decisions he could make to resolve this ongoing challenge. This was an overarching theme throughout this case.

(2) Acute divergences

This second group consisted of five Stable measures: Rushed Decisions, Failure Worry, Challenging Business Context, Equipped for Challenges and Business Stress.

(b) Rushed Decisions

Andrew reported overall positive ($f=19$, 90%) appraisals of whether his business decisions were rushed. This was represented by his *disagreement* with the statement, 'My business decision making tends to be rushed' (Figure 52). Despite one acute, negative divergence at Stage 8, continuity indicated his generally stable and positive responses on this measure.



Figure 52. Appraisals of rushed business decisions (Case 5)

Explanations were presented in his diary study and interviews. Apart from one negative divergence at Stage 8, Andrew reported consistently positive appraisals of his business decisions did not feel rushed. The following stages and challenges each had positive appraisals on this measure:

1. Financial concerns and formal business support (**Stage 2**)
2. How to handle a distributor (**Stage 4**)
3. Business decisions with manufacturing (**Stage 5**)
4. Identifying alternative funding sources (**Stage 6**)
5. Product distribution and brand awareness (**Stage 14**)
6. Legal protection of his product design (**Stage 19**)

Coping with business challenges

Andrew had approached Scottish institutions⁷ for formal business support and obtained direction and guidance (see 8.4 Catalyst for Change). During the diary study, he frequently referred to his 'original plans' with business challenges and decisions related to manufacturing and product design.

At **Stage 2**, Andrew reported challenges related to financial concerns and formal business support he was receiving. His decision was to maintain a sense of pride, "Remain confident and try to be persuasive," and his anticipated outcome was

⁷ Business Gateway, University of Aberdeen Business School, Chamber of Commerce, Scottish Investment Bank

positively-oriented, “Positive things will come.” He clarified that his stress was primarily personal in his further explanation:

Although I'm still in a position where I'm not making any money and that stresses me personally, I'm not stressed about the business itself. We're going to have a successful product and - as a company - our heart is in the right place. **(Stage 2)**

He clarified that the stress he felt was primarily about personal financials, while reiterating his belief in his product and business. While he provided negative appraisals of Uncertainty, Failure Worry and Challenging Context.

The challenge he presented at **Stage 4** concerned his business decisions on how to handle a distributor. He indicated ambivalence his decision, “I've pursued one particular distributor and will let them make the next move, although I'm prepared to go down other routes,” and anticipated outcome, “Either the distributor will like the proposition and offer acceptable terms, or they will not. If not, we go direct to stores.” He emphasised financial difficulty in his further explanation:

The lack of cash flow is starting to get on my mind more. I've got bills to pay! **(Stage 4)**

He provided negative appraisals of Uncertainty, Challenging Context, and Stress. His appraisal of Failure Worry shifted to positive at this stage. Although no explanation was provided, this appraisal was *misaligned* with reported circumstances.

At **Stage 5**, he considered challenges related to business decisions with manufacturing. In response to this challenge, his decision was to use his business plan, “Mostly following an existing vision or plan.” His anticipated outcome was based his desire of what might develop, “I hope for successful manufacture and £££.” He provided negative appraisals of Uncertainty, Challenging Context, and Failure Worry, but his remaining appraisals were positive.

At **Stage 6**, Andrew reported a challenge of identifying alternative funding sources. In response to this challenge, his decision was to obtain direction and follow the guidance he received, “Took advice and worked things out based on the advice.”

His anticipated outcome was that he might acquire funding for his business, “Grant funding, further investment.” At this stage, he provided the same negative and positive appraisals from the previous stage.

At **Stage 14**, his challenge related to product distribution and brand awareness. In response to this challenge, his decision was, “Following a long-term plan,” and his anticipated outcome was, “Gradual increase in brand awareness.” He provided positive appraisals of Rushed Decisions, Factor Awareness, and Equipped for Challenges, with negative appraisals of remaining measures. These changes in his appraisals and refocus on business challenges indicated Andrew’s recovery after peak negative experiences between Stages 8 and 12.

At **Stage 19**, he specified his challenge as legal protection of his product design. He indicated his decision, “Referring to my original plan of action vs available budget.” His anticipated outcome was an indicator of uncertainty, “Too early to say. The decisions are necessary in the short term to get things moving, but it might appear short-sighted in retrospect.” He offered a further explanation clarifying a more pragmatic stance on legal protections:

We need to get a product out and start making money. We've been smart with NDAs and IP protection up to now, but a registered design for a product that no-one wants isn't useful. (**Stage 19**)

He provided positive appraisals of Rushed Decisions, Equipped for Challenges and Performance, and negative appraisals of the remaining measures.

Adapting priorities to changing reality

In his final interviews, Andrew reflected on his decision-making during the diary study and how he felt throughout the process:

With all the decision-making things, I never felt rushed on decision making. (**Andrew, Final Interview**)

Considering his business challenges, he further emphasised commitment to his plans:

Overall, I'm still sticking to a plan. Although challenges have come up, I'm staying a course. **(Andrew, Final Interview)**

He clarified his approach to using existing plans had helped him respond to emerging challenges:

In terms of how I'm approaching challenges, I'm trying to be less emotional. But then, I say I'm sticking to a plan, I know where I want to be and what I want to do, and it's not difficult to make decisions on that basis. I never feel I'm being forced to decide because I know what I'm going to do. It's a tricky one to get right, as a predestination. **(Andrew, Final Interview)**

He identified that 'sticking to a plan' allowed his coping with challenges primarily through affective regulation (emotion-focused). This corresponded with his longstanding appraisals of Uncertainty, as indicated by decision-making ambivalence and a persistent need to tolerate ambiguity in his circumstances.

(c) Business Failure Worry

Andrew provided consistently negative ($f=19$, 95%) appraisals on this measure. This was represented by *agreement* with the statement, 'I worry about my business failing' (Figure 53). His appraisals were negative, although high variation was evident including one acute, positive divergence at Stage 4. However, continuity in these appraisals indicated his stable perceptions of business failure worry.

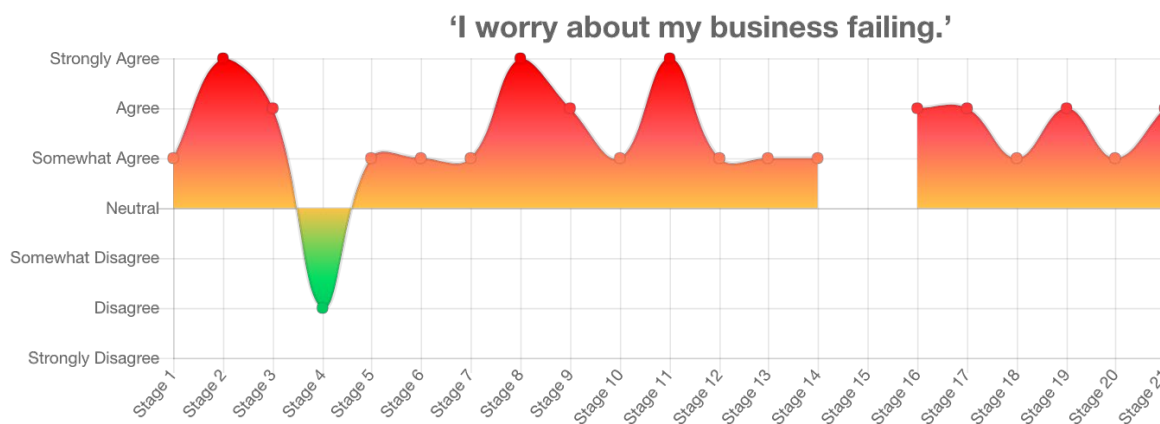


Figure 53. Appraisals of business failure worry (Case 5)

This sequence included an experience at Stage 8 when all of his appraisals shifted negative. He did not report any specific challenge or provide an explanation at this stage but provided delayed explanations in subsequent stages:

1. Possibility of business failure (**Stage 9**)
2. Continuation of financial difficulties (**Stage 10**)

Regardless of specific challenges, Andrew indicated a persistent worry about his business failing that extended beyond the diary study time-frame. Regardless, his responses provided indications of a build-up to failure.

Coping with business failure and recovery

At **Stage 9**, Andrew did not report a specific challenge but offered further explanation about the possibility of business failure and his intention of finding employment rather than continue with his venture:

I'm about to pack it in. I'm going to work hard on prospecting and getting into retail shops over the next week and then start applying for jobs. (**Stage 9**)

In his final interview, Andrew identified conflicted feelings about applying for jobs:

I had to apply for a couple of jobs. It was really hard because I didn't want them. It required much effort to be applying for them. Maybe if I had done something else more related to the business I'd have made money. I don't know. (**Andrew, Final Interview**)

In this build up, he reflected on how personal factors converged with financial pressures:

It was all just getting me down. Definitely, that was a point where it was a combination. I was on my own trying to deal with more than you truly want to be dealing with. I was having substantial financial pressure with my credit card maxed out, nothing coming in, and no clear way of bringing money in. Whereas, now I feel there is a clear way of bringing money in. (**Andrew, Final Interview**)

He pointed out his struggle to cope with financial difficulties and felt unable to mitigate the risk. However, he reported being able to recover the situation in subsequent stages.

At **Stage 10**, his reported challenge was a continuation of financial difficulties. He decided to explore options, “Looked at what solutions are available.” He indicated a shift in his expectations, “Problems will continue, but I’ll have to deal with them,” and provided further explanation:

Things are better. I’m speaking to more people who get what I’m trying to do. I’ve got my sales guy out prospecting. I’m starting to shift from considering end users as my prime customer and looking at retail decision-makers as people that will actually buy my product. **(Stage 10)**

He provided negative appraisals of Challenging Context, Failure Worry, Stress and Uncertainty. He stated that his friends provided financial support:

I found more finance. I got money from friends, which helped.
(Andrew, Final Interview)

He indicated use of his social network to relieve impacts from financial pressure and continue business activities. Alongside personal health and financial issues, Andrew clarified his perspectives on external business challenges throughout the diary study.

(d) Challenging Business Context

Andrew provided negative ($f=18$, 86%) appraisals of his current business context. This was represented by *agreement* with the statement, ‘The current context for my business is particularly challenging’ (Figure 54). High variation was evident including one acute, divergent *positive* appraisal at Stages 15. The overall continuity in his appraisals indicated his stable perception.

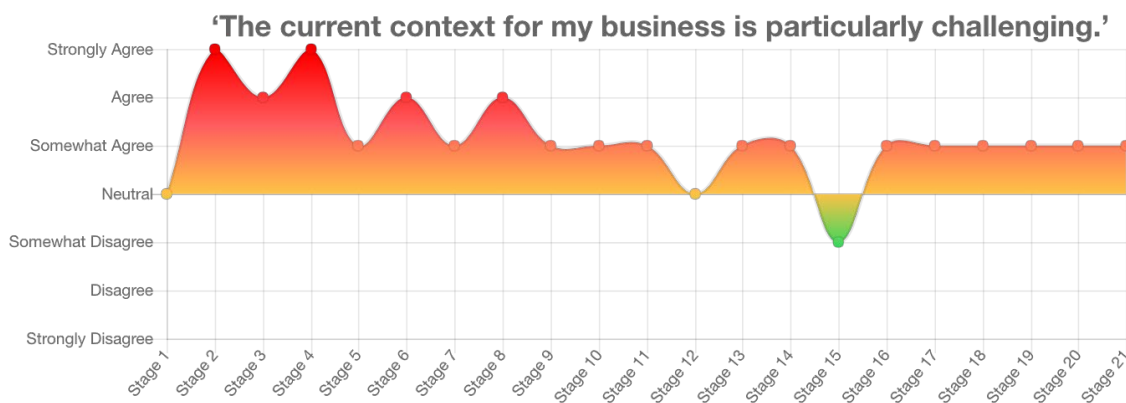


Figure 54. Appraisals of challenging business context (Case 5)

Explanations were indicated in his interviews as a tendency to attribute challenges he faced to factors outside of himself. Apart from one positive divergence at **Stage 15**, Andrew presented a persistent view that extended beyond the diary study. This became evident in his initial interview when he indicated his trajectory into entrepreneurship followed sudden loss of employment a year prior:

I worked [at the university] for a year. They were okay with the job I was doing but they don't want to keep me in the office doing a different job, at the end of my one year's contract, they didn't give me another job. **(Andrew, Initial Interview)**

He expressed a favourable assessment of his job performance, despite acknowledging negative feelings about his employment experience (see 9.3 Entrepreneurial Orientation). He eventually reframed these pre-entrepreneurial outcomes as a consequence of challenging conditions:

I remember about that time UK wanted to leave the EU and all universities that summer went, "hold on, we don't know what's happening, we're not hiring anyone". **(Andrew, Initial Interview)**

Rather than attributing loss of employment to personal limitations, Andrew suggested that a difficult economic environment had prevented his continued employment. This was further evident in his final interview, as he blamed business 'problems' on factors outside of his business:

The major problems haven't been my fault and not really in the business. **(Andrew, Final Interview)**

In his interviews, Andrew noted various barriers in his pre-entrepreneurship workplace, broader economic conditions, problems in his personal childhood and upbringing, along with poor personal health and no financial stability in his business. While further indicating minimal experience in business-related skills and a lack of confidence in his abilities, he nonetheless viewed his ability to handle business challenges favourably throughout the diary study.

(e) Equipped for Business Challenges

Andrew's overall positive ($f=15$, 71%) appraisals on this measure were represented by his consistent *agreement* with the statement, 'I feel equipped to handle challenges facing my business' (Figure 55). While the majority of his appraisals were positive, his appraisals fluctuated to negative ($f=4$) and neutral ($f=2$) during the diary study. This lack of continuity in his appraisals indicated an unstable perception of his ability to handle business challenges.

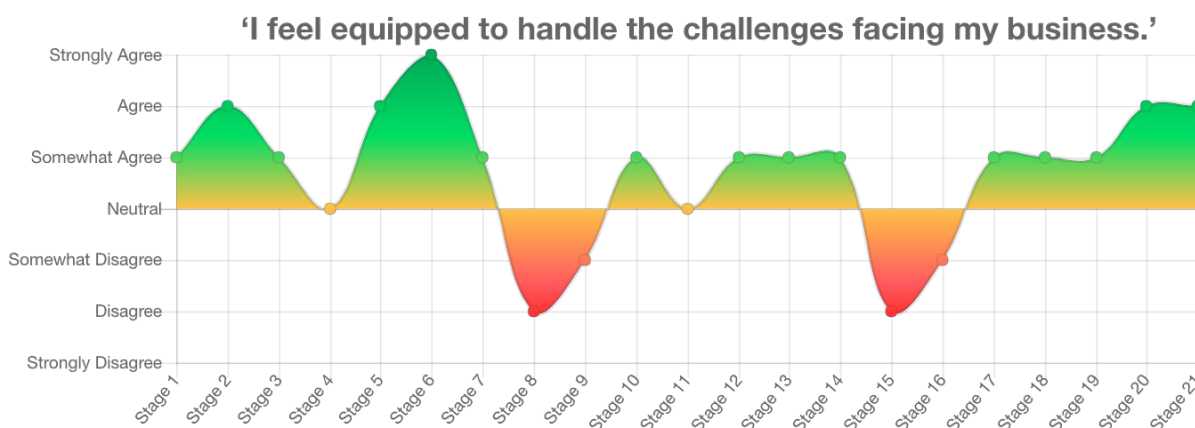


Figure 55. Appraisals of feeling equipped to handle challenges (Case 5)

Apart from negative divergences at Stages 8 and 15, his positive appraisals indicated situations that Andrew felt able to handle business challenges he was facing. This dynamic response pattern was closely aligned with Factor Awareness.

Coping with personal limitations

Andrew started to realise that his personal characteristics would extend into his approach for addressing business-specific challenges. In his final interview, Andrew expressed his growing realisation that business development would be dependent on changes he made to himself:

That is really important for my business development. Because like it or not, a part of what I'm going to do is to rely on personality if I'm going to have the impact that I want to have. That's the main development. It's focused on me as someone who is going to create an identity. **(Andrew, Final Interview)**

To express this self-understanding, he attributed views of *personal capability* to formative years but indicated changes during the diary study to his self-perception:

That goes back to my upbringing and being told what is possible for me. It turns out that I'm capable of an awful lot more than I would have thought I could do. Also, accomplishing a lot isn't impressive to people. **(Andrew, Final Interview)**

By the end of the diary study, he recognised the importance of personal development to his entrepreneurial journey, and began to see himself in new light:

If I let it be a confidence booster it will be. But that's me, it's all about negotiating that permission within myself. **(Andrew, Final Interview)**

He expressed feeling more aware of personal limits that were impacting his business. Except for expressed financial difficulty, he presented little indication of problems preceding Stage 8. This pointed to *misalignment* between his capacity to compensate for personal weaknesses that were crucially tied to preventing business progress. Indeed, this emerged only after Andrew experienced negative effects and while experiencing self-doubts, financial pressure and risk of business failure.

Drawing on relevant past experience

Andrew considered his relevant past experiences and personal abilities, but noted specific challenges impacting this entrepreneurial endeavour that he did not feel prepared to handle. In his interviews, evidence indicated that his previous education and work experiences did not sufficiently prepare him to be an entrepreneur. However, Andrew expressed a range of beliefs about himself and his abilities from his personal background that did apparently transfer to his entrepreneurial orientation.

Obtaining direction and guidance from an authority

As indicated in his initial interview, Andrew had approached Scottish institutions for formal business support and obtained direction and guidance, which included support on developing his business plans (see 8.4 Catalyst for Change). This support accelerated his progress in product development, as well as his expenditures, which contributed to his longstanding financial difficulties.

In his final interview, he presented another source of guidance throughout the diary study as self-education from business books:

I try and be excited with business books, even if I'm reading something that is rubbish, but it's supposed to be affirming and positive and inspirational, then I'll try and get affirmed, positive and be inspired, you know. I find it interesting to look at them and go, "*This is fallacious. It doesn't add up. You're ignoring this and this.*" But if there's something there, [maybe] I can find something that is practically helpful...

(Andrew, Final Interview)

Andrew realised that seeking information that might be missing or imperceptible to him, but indicated not knowing specifically what he needed while starting his venture:

It turns out I am doing all the things you are supposed to do any way, but there you go... just try and soak that up. What I initially said is, '*I don't know what I don't know.*' Best way to find out what I don't know is to expose myself as much as possible. **(Andrew, Final Interview)**

He runs the risk of collecting as much information as possible, but then not knowing what is relevant to his specific situation or business challenges:

I'm going to take that risk. That's who I am. I thought I'm going to take on everything. I'm too open-minded to just pick one thing and go with it, that is not going to help me. [...] There hasn't been one way that has just worked for everyone to do that and to try a few different ones.

(Andrew, Final Interview)

Andrew indicated being influenced from reading business books, particularly in his view that business practices were flexible (i.e., no standards or best practices). While Andrew's perception of personal limits started to serve a practical purpose for managing his business, his preparation indicated an overgeneralisation that was misaligned with actual issues facing his business.

(f) Business Factors Awareness

Andrew's overall positive ($f=13$, 62%) appraisals on this measure were represented by *agreement* with the statement, 'I have accounted for the major issues facing my business' (Figure 56). His appraisals fluctuated to neutral ($f=5$, 23%) and negative ($f=3$, 14%) at multiple stages during the diary study. Despite fluctuation, continuity in his appraisals indicated a stable perception of business issues.

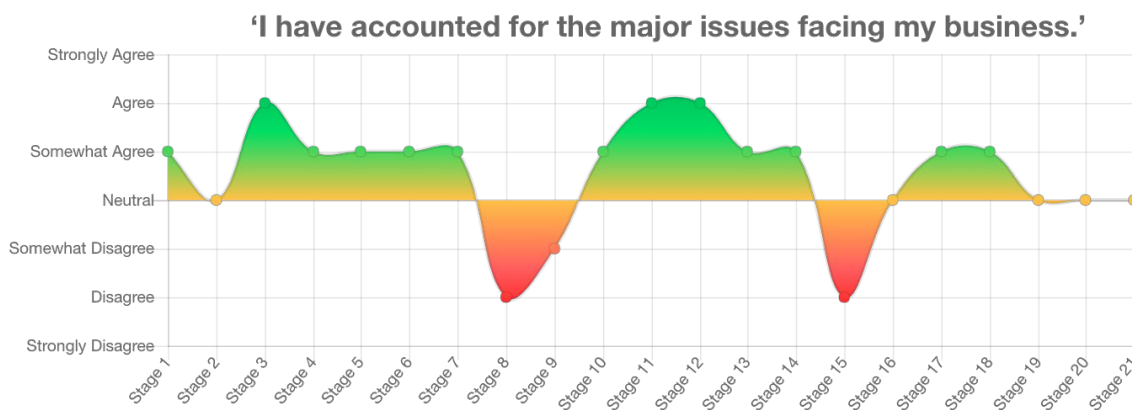


Figure 56. Appraisals of major issues facing business (Case 5)

Andrew acknowledged facing new challenges that emerged during the diary study and this required that he locate alternative solutions. His perspective of major issues was apparently helped by obtaining direction and guidance from both formal and informal business support. His perceptions of major issues facing his business were closely aligned with Feeling Equipped for Challenges, where further discussion is provided.

8.2.2.2 Unstable Response Patterns

The response patterns for five subjective measures were classified as Unstable during the diary study. This classification was due to a low continuity in valence and high variations in his appraisals, including frequent divergences.

(3) Longstanding divergence

This third group consisted of three Unstable subjective measures: Business Progress, Control and Stress. These measures had high variation and longstanding changes in his perceptions and circumstances during the diary study.

(g) Business Progress

Andrew's overall positive ($f=11$, 52%) appraisals were represented by his agreement with the statement, 'I am pleased with how my business is doing' (Figure 57). His appraisals were initially positive but changed during the diary study after Stage 7. After this point, his appraisals fluctuated between negative ($f=5$, 24%) and neutral ($f=5$, 24%), then shifted back to positive after Stage 17. These fluctuations represented a longstanding change during the diary. This lack of continuity in his appraisals indicated an unstable perception of his business progress.

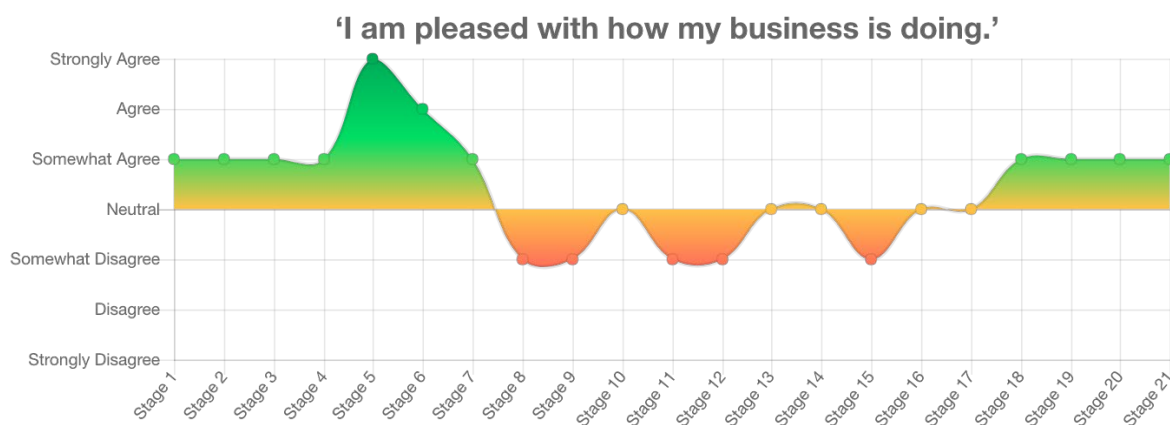


Figure 57. Appraisals of business progress (Case 5)

The longstanding change in his appraisals occurred in close proximity to challenges he faced in the middle of the diary study at Stage 8. His interviews provided explanations. The response patterns aligned closely with Business Control and Stress.

Setting achievable performance targets

In his initial interview, Andrew specified a performance target for his business that he felt might be achievable:

They gave me the idea of first milestone viability, which is VAT threshold, because that's how you know you are a serious business, when the government wants to tax you. **(Andrew, Initial Interview)**

He used guidance from business books that suggested using the VAT threshold as a first milestone and performance target. Without seeking alternatives more specific to his business, he decided to adopt this indicator as a goal that might be attainable.

Evaluating performance

In his initial interview, Andrew noted the difficulties of maintain a positive view of his progress without speaking to others who could provide feedback:

Yesterday was the day that no-one was going to buy it. I was thinking, “What am I doing? This is a waste of time. No-one is going to buy it. No-one is interested.” But then, I [received] a text saying, “[a musician] tried and likes it”, because I’ve got working prototypes sitting in a music shop. [...] He is a phenomenal player who works at a jazz club. Him using it on stage would get this known. But I go through these feelings, “Why am I doing this? This is ridiculous. If it was that good an idea someone else would have done it before.” (Andrew, Initial Interview)

Andrew recognised how facing ambiguous challenges in his business required effort to suppress worry and refocus on more positive responses. Receiving outside feedback helped him appraise business progress more positively in this instance. Nonetheless, his financial concerns and worry continued throughout the diary study.

In his final interview, Andrew expressed his “up and down” satisfaction with his business progress during the diary study:

It’s been really up and down. Well, actually mostly down. (Andrew, Final Interview)

He reported his overall negative experience and shared the impact of sustaining himself financially had on his assessment of business progress:

The cash flow situation it's really challenging because until now there hasn't been anything coming in. It's been pretty desperate at times and we're at a point where things need to start getting better... they are about to start getting better. (Andrew, Final Interview)

He expressed his experience of feeling financial pressure yet remained optimistic that things would work out over time. He considered his progress and eventually suggested that he had made progress, but the changes in his business were not what he expected:

I needs to take off stock and say that I made progress since then, but not necessarily in the way that I thought it would. We have a lot better position in terms of being investable, a lot clearer on what final product is going to be and starting to get sales... starting to get pre orders.

(Andrew, Final Interview)

Andrew eventually changed his assessments to become more aligned with the changing reality of the situation, albeit with reluctance. He recognised improvements in areas of the business he had addressed during the diary study. From the viewpoint of those helping him, he reported learning consolidated around a need to keep the entrepreneurial process in perspective:

Learning about patience, in that respect, is valuable for people that are willing to help. Sometimes these things take time. **(Andrew, Final Interview)**

Furthermore, he explained that his wife had been supportive and reassuring despite a lack of objective results being visible in his business:

She's helpful in saying, you know, 'There's a lot to cope with,' and also, she points out to me how hard I'm working, even when there are no results. She's proud of me and she's made that clear. She's proud of me that I'm doing something that's this stupid. **(Andrew, Final Interview)**

From Andrew's perspective, changes in the 'position' for his product and business included a better capacity for manufacturing, sales and investment. However, coping with challenges and decisions along the way had contributed to incremental changes that he did not easily perceive while engaged with his business. His positive appraisals were apparently less connected to objective performance and more connected to feedback and validation that he received from social reinforcement.

(h) Business Control

Andrew's appraisals of control over his business were mixed in response the statement, *'My business feels out of control'* (Figure 58). His appraisals were initially positive ($f=8$, 38%) until Stage 7 and then shifted to negative ($f=8$, 38%) and neutral

($f=5$, 38%) in subsequent stages. His appraisals then shifted back to positive towards the end of the diary study. This rising and falling in Andrew's appraisals and lack of continuity indicated his unstable perception of business control.

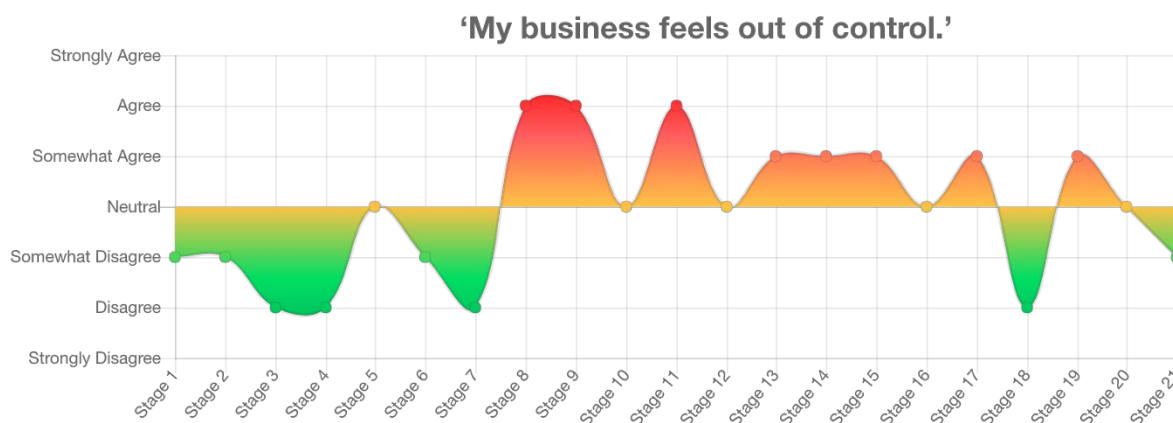


Figure 58. Appraisals of Business Control (Case 5)

This dynamic response pattern indicated his perceptions of business control were negatively impacted by challenges faced during the diary study. Additionally, his control beliefs in earlier stages were evidently misaligned with his actual control, preparation and business-related skills. The longstanding shift following Stage 8 closely matched responses presented under Business Progress and Stress. The financial pressure he felt impacted his view of business progress, but this improved later in the diary study at Stage 18 as he began to regain his sense of control in his business.

(i) Business-Related Stress

Andrew presented overall negative ($f=13$, 62%), but unstable appraisals of business-related stress. This was represented by his *disagreement* with the statement, 'My business makes me feel stressed' (Figure 59). His appraisals until Stage 7 were mostly positive ($f=7$, 33%) and then shifted to negative in subsequent stages. At the end of the diary study his appraisal shifted back to positive. These fluctuations represented a longstanding divergence and unstable perceptions of business stress.



Figure 59. Appraisals of business stress (Case 5)

Explanations were provided both in his diary accounts and interviewed. Overall, the shift in his business stress was indicative of financial pressure that followed Stage 8 and substantial personal difficulties presented at Stage 11. These negative effects from stress continued to impact his business until the end of diary study. His appraisals returned to positive at Stage 21 with indications of favourable business developments and a new business partner, noting in his final interview that his personal life and business had finally started to rebalance.

Coping with personal difficulties

At **Stage 11**, Andrew did not report a specific challenge or provide explanations for his negative appraisals of business control, stress, failure worry, and uncertainty. However, he provided an explanation at Stages 12 in his diary account, when he reported his challenge: “*Financial.*” He reported his decision: “*Necessity.*” He explanation provided further context:

I had really bad family news on Friday, I've taken it easy on myself this week far. I have new prototypes arriving tomorrow I'll get back in the swing from tomorrow on. (**Stage 12**)

The difficulty he specified at this stage had a strong connection to family and emotional pressures. In his final interview, provided a retrospective account of feeling unprepared to handle this personal challenge alongside continued financial pressures in his business:

That has cost me so much emotional energy... so much. I mean, really set me back. It's been really difficult. That's where it's hard to just get back into the business and do stuff. If I was a slightly different person I could be like, "I'm going to throw myself into something and ignore that." But in the end, I just had to take time and go, "I can't just keep going." (**Andrew, Final Interview**)

He referenced his close personal relative and expressed that his difficulty coping with emotional strain and keeping himself balanced:

I've had with my background and my health problems, it's been difficult to manage that within the challenges of the business and those then becoming personal challenges and not being distinct from the business. That's been quite interesting and difficult. (**Andrew, Final Interview**)

In this way, Andrew indicated his view that personal challenges had extended into his business, as observations that personal and business challenges were interconnected.

Rebalancing business and personal life

At **Stage 20**, Andrew reported a challenge related preparation for business development, "Getting ready for a launch at the biggest guitar show in the U.K." In response to this challenge, his decision was to take direct action in his business, "Work damn hard." His anticipated outcomes related to positive business developments, "Exposure, sales, profile raised." He offered a further explanation that indicated the relief he felt from receiving his first pre-order sale:

I'm feeling a lot better since we made our first pre-order sale on Friday.
It's really welcome. (**Stage 20**)

He expressed feelings of relief at the progress being made towards sales and alleviating financial pressure. He presented positive appraisals of Rushed Decisions, Business Progress and Equipped for Challenges, but negative appraisals on remaining measures.

At **Stage 21**, Andrew reported routine challenges and a business development with a new business partner, “Bringing someone else on, looking for public funding, projecting growth.” In response to this challenge, his decision was, “Sticking to the plan, but taking account of guiding principles.” His anticipated outcome was an optimistic view of the future, “More chance of longer-term success.” He provided the same appraisals at Stage 20. In his final interview, Andrew noted that a previous professional connection had offered investment in his company:

He was my boss back when I worked in music shops back in the old days. He’s come forward now. He’s put money in and that’s going to pay for a manufacturing run. **(Andrew, Final Interview)**

Andrew provided an explanation for how he was “approached” for investment:

I was in touch with him and he was like, “are you looking for investment?” and we started the conversation from there. **(Andrew, Final Interview)**

He noted his surprise at being approached in this way:

It was a surprise, but it seems quite logical now. **(Andrew, Final Interview)**

He was surprised someone would offer him money for part of his business or product. However, he clarified a lack of understanding for these aspects of investment or conventional business partnership:

I didn’t realise that other people would be interested. I thought I had to deal with it myself. **(Andrew, Final Interview)**

He explained his understanding that others would not be willing to help him unless they were given stable employment and a salary:

Maybe once I can offer people a salary, then I would bring them on, you know? But to get them for nothing, well not for nothing, I understand that, but I don’t think I would make that approach to someone. That doesn’t seem like a fair deal to me, it’s not something I would approach someone with. **(Andrew, Final Interview)**

Additionally, he indicated his uncertainty about legal aspects of investment and providing equity:

I'm going to give him 10% equity. I'm not sure whether that's something that you work out with the legal team, because I know if he just puts in 10% money they will think he has much say in what happens. **(Andrew, Final Interview)**

He recognised this person's skills and social network as helpful for his business:

It's much more his skills are going to be really useful in terms of... because he's someone that has worked in music shops for thirty-five years, he's run music shops he knows what sells, what doesn't sell, and he's got lots of contacts. **(Andrew, Final Interview)**

He considered his new business partner's willingness to invest as validation for his efforts in his business, product and himself:

I trust him with it as well. He's not independently wealthy or anything. If he's putting money in it's because he believes in the product. But he also believes in what I'm trying to- what the company is about and not just in it to make himself a profit. We both believe that it will, but it's not just about that. **(Andrew, Final Interview)**

Andrew reported that roles between himself and his new business partner had begun to clarify based on his personal weaknesses and limitations:

He's taking over the little detailed stuff that isn't necessarily my strong suit. Now he's in direct contact with the manufacturer for me and that's been really helpful. [...] Chasing up the manufacturer, which is the thing that was a real stressful for me. **(Andrew, Final Interview)**

He identified his sense of relief from his business partner's efforts that had begun to positively impact his personal performance and negative experiences of pressure:

I feel I've got more energy to do more stuff. Definitely. And it's not actually true because there there's no massive workload that [my business partner] has suddenly taken on. **(Andrew, Final Interview)**

He expressed feeling a positive and stimulating sense of motivation and effort. Additionally, he felt the impact of decisions on his personal life from bringing his business partner. He noted that this change helped his wife feel more positive about the outlook for his business:

She's willing to invest emotionally and in terms of covering household finances and cutting back. She's always been willing to do that because I believed in it, but now that there's someone else who believes in it she knows and trusts, she's calmer about it now. **(Andrew, Final Interview)**

The impact of this personal experience extended to his business, in his perception of himself and his ability to cope with these challenges and limit effects on his business:

What happens if things are going badly for me mentally is there is more procrastination. Things are held off until I feel I can do them. That's something that'll be easier with bringing someone else in if I'm accountable to them in terms of what I need to get done. **(Andrew, Final Interview)**

His wife expressed her sense of relief from his new business partner's willingness to invest, involvement in the business and new level of commitment. He indicated the feedback and appraisal from his wife was more favourable as a result of this change. He began feeling reduced psychological and financial pressure, less overloaded and conflict from giving up a role in the business to his new partner that he felt less capable of performing. This effectively helped him understand with personal limits and rebalance his business priorities.

8.6 Chapter Summary

Andrew's narrative highlights his entrepreneurial development as he acted to reclaim control of his financial stability and regain a personal sense of his capability. His underlying concern was about actions needed to produce revenue and facilitate his

financial security. His transition into entrepreneurship began after loss of employment, less than a year prior, which he started out of necessity. He used a product idea he had conceived of prior to the change in his employment situation. He accessed help from formal support institutions at the outset of his endeavour and this accelerated development of a working prototype and commitment to his business. However, he exhausted financial resources at an early stage. He noted his ongoing and increasingly negative experience of financial pressure. This pressure became a background factor that impacted his ability to make decisions and respond effectively to emerging business challenges. As both financial and personal pressures intensified, his negative experiences peaked midway through the diary study observational period. He became more aware of his personal limits but was mostly able to fall back on available social support, including his wife and close friends, to buffer him with financial assistance and offer reassurances.

At the end of the diary study, he accepted an offer for investment and business partnership from a trusted friend, with whom they both understood the industry and local market. As his business partner became increased commitment, his venture quickly gained traction and ameliorated many of his expressed concerns, feelings of stress and corresponded with a positive change in his self-confidence and identity as an ‘entrepreneur’. Overall, Andrew’s narrative as an entrepreneur highlights his personal development as he acted to set up his company, reclaim control of his financial situation, and regain a sense of his personal capability. This further serves as a connection between the challenges he reported and changes in his appraisals during the diary study and interviews. Andrew had been willing but unaware of social support he could access and to what extent. This apparently connected to uncertainty and stress, substantial pressure on his personal resources (financial and emotional) and increased risk of business failure.

Table 44. Diary study longitudinal measures of subjective assessments (Case 5)

	Stages	Business Challenges	Business Progress	Challenging Business Context (N)	Business Uncertainty (N)	Rushed Decisions (N)	Business Factors Awareness	Business Control (N)	Business Failing Worry (N)	Equipped for Business Challenges	Business-related Stress (N)
Baseline	Stage 1		Somewhat Agree	<i>Neutral</i>	Agree	Somewhat Disagree	Somewhat Agree	Somewhat Disagree	Somewhat Agree	Somewhat Agree	Somewhat Disagree
Repeated Measures	Stage 2	Yes	Somewhat Agree	Strongly Agree	Agree	Somewhat Disagree	<i>Neutral</i>	Somewhat Disagree	Strongly Agree	Agree	Disagree
	Stage 3	No	Somewhat Agree	Agree	Somewhat Agree	Somewhat Disagree	Agree	Disagree	Agree	Somewhat Agree	Disagree
	Stage 4	Yes	Somewhat Agree	Strongly Agree	Strongly Agree	Somewhat Disagree	Somewhat Agree	Disagree	Disagree	<i>Neutral</i>	Somewhat Agree
	Stage 5	Yes	Strongly Agree	Somewhat Agree	Somewhat Agree	Somewhat Disagree	Somewhat Agree	<i>Neutral</i>	Somewhat Agree	Agree	Somewhat Disagree
	Stage 6	Yes	Agree	Agree	Agree	Somewhat Disagree	Somewhat Agree	Somewhat Disagree	Somewhat Agree	Strongly Agree	Disagree
	Stage 7	<i>Unsure</i>	Somewhat Agree	Somewhat Agree	Strongly Agree	<i>Neutral</i>	Somewhat Agree	Disagree	Somewhat Agree	Somewhat Agree	Somewhat Disagree
	Stage 8	<i>Unsure</i>	Somewhat Disagree	Agree	Strongly Agree	Agree	Disagree	Agree	Strongly Agree	Disagree	Agree
	Stage 9	No	Somewhat Disagree	Somewhat Agree	Agree	Somewhat Disagree	Somewhat Disagree	Agree	Agree	Somewhat Disagree	Strongly Agree
	Stage 10	Yes	<i>Neutral</i>	Somewhat Agree	Somewhat Agree	Somewhat Disagree	Somewhat Agree	<i>Neutral</i>	Somewhat Agree	Somewhat Agree	Somewhat Agree
	Stage 11	No	Somewhat Disagree	Somewhat Agree	Agree	Somewhat Disagree	Agree	Agree	Strongly Agree	<i>Neutral</i>	Strongly Agree
	Stage 12	Yes	Somewhat Disagree	<i>Neutral</i>	Somewhat Agree	Somewhat Disagree	Agree	<i>Neutral</i>	Somewhat Agree	Somewhat Agree	Somewhat Agree
	Stage 13	No	<i>Neutral</i>	Somewhat Agree	Somewhat Agree	Somewhat Disagree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree
	Stage 14	Yes	<i>Neutral</i>	Somewhat Agree	Somewhat Agree	Somewhat Disagree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree
	Stage 15	No	Somewhat Disagree	Somewhat Disagree	Somewhat Agree	Somewhat Disagree	Disagree	Somewhat Agree	<i>Skipped</i>	Disagree	Somewhat Agree
	Stage 16	No	<i>Neutral</i>	Somewhat Agree	Agree	Disagree	<i>Neutral</i>	<i>Neutral</i>	Agree	Somewhat Disagree	Agree
	Stage 17	No	<i>Neutral</i>	Somewhat Agree	Somewhat Agree	Somewhat Disagree	Somewhat Agree	Somewhat Agree	Agree	Somewhat Agree	Somewhat Agree
	Stage 18	No	Somewhat Agree	Somewhat Agree	<i>Neutral</i>	Somewhat Disagree	Somewhat Agree	Disagree	Somewhat Agree	Somewhat Agree	<i>Neutral</i>
	Stage 19	Yes	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Disagree	<i>Neutral</i>	Somewhat Agree	Agree	Somewhat Agree	Somewhat Agree
	Stage 20	Yes	Somewhat Agree	Somewhat Agree	Agree	Disagree	<i>Neutral</i>	<i>Neutral</i>	Somewhat Agree	Agree	Somewhat Agree
	Stage 21	Yes	Somewhat Agree	Somewhat Agree	Agree	Disagree	<i>Neutral</i>	Somewhat Disagree	Agree	Agree	Somewhat Disagree

Table 45. Business challenges by longitudinal stage (Case 5)

	Stages	Business Challenges	Challenges Addressed	Business Decisions	Anticipated Outcomes	Further Explanation
Baseline	Stage 1					Despite uncertainty and a lack of cash - and no salary for 8 months - I feel less stressed than I was as a university employee. I'm in control of my life now.
Repeated Measures	Stage 2	Yes	Cash flow problems, important meetings, deadline for [the competition].	Remain confident and try to be persuasive.	I think that positive things will come.	Although I'm still in a position where I'm not making any money and that stresses me personally, I'm not stressed about the business itself. I think we're going to have a successful product and - as a company - our heart is in the right place.
	Stage 3	No				
	Stage 4	Yes	Decisions about marketing and distribution lines.	I've pursued one particular distributor and will let them make the next move, although I'm prepared to go down other routes.	Either the distributor will like the proposition and offer acceptable terms or they will not. If not, we go direct to stores.	The lack of cash flow is starting to get on my mind more. I've got bills to pay!
	Stage 5	Yes	Decisions over final product look, financing and future plans	Mostly following an existing vision or plan.	I hope for successful manufacture and £££	
	Stage 6	Yes	Looking at short term funding options	Took advice and worked things out based on the advice	Grant funding, further investment.	
	Stage 7	Unsure				
	Stage 8	Unsure				
	Stage 9	No				I'm about to pack it in, I think. I'm going to work hard on prospecting and getting into retail shops over the next week and then start applying for jobs.
	Stage 10	Yes	Cash flow problems	Looked at what solutions are available.	I think problems will continue, but I'll have to deal with them.	Things are better, because I'm speaking to more people who get what I'm trying to do. I've got my sales guy out prospecting. I'm starting to make the shift from considering an end user as my prime customer, and looking at retail decision makers as people that will actually buy my product.
	Stage 11	No				
	Stage 12	Yes	Financial	Necessity		I had some really bad family news on Friday, so I've taken it easy on myself this week so far. I have new prototypes arriving tomorrow so I'll get back in the swing from tomorrow on.
	Stage 13	No				
	Stage 14	Yes	Quickly turning around prototypes for distribution to professional musicians.	Following a long term plan.	Gradual increase in brand awareness.	
	Stage 15	No				
	Stage 16	No				
	Stage 17	No				
	Stage 18	No				
	Stage 19	Yes	IP and product design decisions.	Referring to my original plan of action vs available budget.	Too early to say. I think the decisions are necessary in the short term to get things moving, but it might appear short-sighted in retrospect.	We need to get a product out and start making money. We've been smart with NDAs and IP protection up to now, but a registered design for a product that no-one wants isn't useful.
	Stage 20	Yes	Getting ready for a launch at the biggest guitar show in the U.K.	Work damn hard.	Exposure, sales, profile raised.	I'm feeling a lot better since we made our first preorder sale on Friday. It's really welcome.
	Stage 21	Yes	Bringing someone else on, looking for public funding, projecting growth.	Sticking to the plan, but taking account of guiding principles	More chance of longer term success	

CHAPTER 9: CASE STUDY 6 (LEWIS)

9.1 Introduction

Individual-level longitudinal results are presented in this chapter for ‘Lewis’. These results draw on the full range of empirical data available, including the pre-diary (initial) questionnaire and qualitative interview, the diary study (18 survey entries) and the post-diary (final) qualitative interview. Data have been analysed inductively, as outlined under 3.6 Data Analysis Methods.

9.2 Personal Background

Lewis is a sole proprietor specialising in software development. He is a South American white male in his mid-thirties living in a large city in Scotland (United Kingdom). He has completed an undergraduate (bachelors) degree in Computer Science and worked professionally for 12 years, including employment and freelance contracting. Lewis has no substantive education, background or skills in business. He did not intend to become an entrepreneur but has been motivated to achieve freedom and enjoyment from his endeavours. His first attempt at developing software and a start-up did not survive to commercialisation. By the time of the first interview, Lewis had been working as a sole proprietor on a government software development project. While his active day-to-day involvement in business decisions and operations were primarily directed towards the continuation of his contract, his stated intention was to identify a viable product or business idea and start his subsequent venture as a ‘software consultancy’. However, he had not yet invested time or financial resources into a subsequent business venture, as seen in Table 46.

Table 46. Participant characteristics (Case 6)

	Question	Response
Selection Criteria	Active in Starting Company	Unsure
	Tech Startup Perception	Unsure
	Exploring viability of business idea	Yes
Active Involvement	Personal Stake	Unsure
	Business Decisions	Unsure
	Operations	Unsure
Busines Information	Primary Industry	Software engineering
	Specialist Technology	Yes
	Outside Country of Residence	No
	Country of Residence	United Kingdom
	Industry Experience	12 years
	Active in Business	4 years
	Hours per week of work	45 - 55
	Current Company Role	Unsure
	Co-founder/Business Partner	No
Personal Information	Gender	Male
	Age	30-39
	Spouse/Partner	Yes, I have a spouse/partner (wife/husband,
	Education Level	Undergraduate / Bachelor's
	Undergrad Subject Area	Computing science

9.3 Entrepreneurial orientation

In his initial questionnaire, Lewis associated ‘entrepreneurship’ with a start-up and involvement in new technology businesses as the salient idea of being an ‘entrepreneur’ (Table 47).

Table 47. Baseline for appraisals of entrepreneurship (Case 6)

	Short name	Question	Response
Baseline perceptions	General	In general, what comes to mind when you think of 'Entrepreneurship'?	Start-up
	Being an 'Entrepreneur'	What comes to mind when you think of being an 'Entrepreneur'?	Someone involves in starting new tech businesses

Lewis had not received formal education or training in business, nor did he intend to be an entrepreneur. Regardless, he had been motivated by a longstanding interest to develop and commercialise his own software solutions:

Having my own software has been a dream of mine that I have always, always, always wanted. **(Lewis, Initial Interview)**

He previously attempted the development of his own software and start-up company after believing he had identified an opportunity while employed in his second job. However, this first attempt did not survive to commercialisation (see 9.4 Catalyst for Change). By the time of his first interview, he had been working as a sole proprietor on a government software development project. He recognised his desire to develop himself as an entrepreneur:

Now I feel it's time for me to move forward in terms of trying to establish myself as what *I want to be... an entrepreneur* [emphasis added]. Although, I like the word 'entrepreneur' for other people. I wouldn't call myself an entrepreneur because I haven't started a proper business yet. I think 'entrepreneur' is for cool, sophisticated people. **(Lewis, Initial Interview)**

He expressed his positive association with 'entrepreneur', but expressed difficulty using this as an identity to describe himself or his achievements. Rather, the implications of his failed endeavour still appeared to negatively influence his view of himself, what he had achieved, and his entrepreneurial capacity.

He indicated a motivation to gain a sense of independence and enjoyment for his work. Indeed, this appeared connected to his desire to again move towards a subsequent entrepreneurial endeavour:

I'm realising that *I'm full of enthusiasm* [emphasis added]. There is a general direction that I want to go, which is to develop my own software product and be financially stable. I want to provide a service, but *I need mentorship because I feel like I'm clueless as to how to move forward* [emphasis added]. **(Lewis, Initial Interview)**

Regardless of his orientation and intention, he expressed feeling uncertain about how to proceed. Lewis also perceived barriers to his progress that he felt poorly equipped to handle by himself:

I need someone to give me a direction of how to move forward. *I need to find a product for which there is a market and I need mentorship* [emphasis added]. I don't know how else to describe it. [...] That mentorship maybe in the form of taking a course and being in an environment in which I have support. When I'm being given a direction, I'm much better at being structured. I'm a very structured person. **(Lewis, Initial Interview)**

Lewis identified his desire to start a subsequent entrepreneurial endeavour but indicated a lack of necessary structure without a supportive environment or mentorship. Indeed, these perceived barriers were further indicated during the diary study observational period in his uncertainty about viable products and his ability to move forward with opportunities.

By the end of the diary study, Lewis expressed his continued optimism for pursuing future entrepreneurial endeavours:

I feel more positive than when I first met you. I used to have doubts about whether I would make it, but now I feel convinced that it will happen, sooner or later. It will happen. I don't know when. But I'm convinced that it will happen. **(Lewis, Final Interview)**

He indicated confidence that he would eventually pursue further opportunities to develop his own software but remained uncertain about timing for re-engaging. Despite this awareness, Lewis indicated his proactive orientation to engage with new ideas and willingness to take on risk and try new and uncertain markets.

9.4 Catalyst for Change

After believing he had identified an opportunity while employed in his second job, this motivation and interest contributed to his willingness to step into his first entrepreneurial endeavour:

There was actually a need for this system. My idea was to build this system free of charge and then run a pilot to have them help me with the bugs and perfect the system. Then once the system is built, I'd find an industry with similar needs and sell this software to them. *Although the software wasn't built for profit, it was aimed at being for profit, so I worked out the licenses and got my wife, as a lawyer, involved in the legal aspects of it* [emphasis added]. **(Lewis, Initial Interview)**

In his spare time, he decided to independently start developing 'free of charge' for a prospective client because he believed he could eventually commercialise this software. He enjoyed his work to such an extent that he decided to leave his job and develop this solution full-time:

In my spare time I was building a small resource and management system [...]. Because I loved working on that system so much I decided to take three months to work on it full time. **(Lewis, Initial Interview)**

While his initial intention was to spend 3 months to develop the software, he instead spent 18 months. During this time, he isolated himself to focus entirely on the software while unpaid:

I got completely sucked in. I started spending more and more time in it, postponing going back to paid work. **(Lewis, Initial Interview)**

He felt confident that he could transition back to employment at a time of his choice:

I thought, *'I'm such a good software developer that I'm going to carry on until I run out of money. And then, when I run out of money, I'm going to get a job at the drop of a hat, because I'm such a good software developer'* [emphasis added]. **(Lewis, Initial Interview)**

But facing declines in his financial resources he eventually ran out and could not find employment:

Of course, I ran out of money. When I decided to get a job, it turns out that the industry wasn't looking for software developers. Then, that was *a massive realisation that I wasn't near as special as I thought I was.* [emphasis added] **(Lewis, Initial Interview)**

Thus, his first attempt at developing software and a start-up did not survive to commercialisation. He indicated awareness that better consideration of sustaining financial resources would have been necessary:

It's all well and good to try to build a system but profit really needs to be part of the equation [emphasis added]. I can't build something out of the goodness of my heart and then hope that eventually somehow the money will come. **(Lewis, Initial Interview)**

Although his first endeavour initially started positively, he eventually hit a threshold where this experience became a *personal* failure:

Just building the software I thought I was doing well, working from home on my own. *But looking back, I can tell you that it was a colossal failure on a personal level* [emphasis added]. **(Lewis, Initial Interview)**

He made his perspective clear by indicating that nothing could have inoculated or protected him from the eventual outcome:

For me, it was focus, focus, focus - *just power through and get the goal* [emphasis added]. I applied this same methodology for my software and that's why I was doomed for failure. *It doesn't matter what anyone could have told me at the time, nothing was going to change my mind because I did not know any different* [emphasis added]. I didn't know anything else. That's all I knew in my life. **(Lewis, Initial Interview)**

With hindsight, he provided a deterministic assessment of past behaviour leading to eventual failure:

I feel like I had to go through what I went through in order to realize this and I have come to terms. *Nothing would have avoided the impending failure* [emphasis added]. As I said before, I'm quoting someone else, *I feel that I was the architect of my own demise* [emphasis added]. **(Lewis, Initial Interview)**

He described declines in his personal and business relationships and the negative impacts he experienced in his personal life leading up to his eventual failure:

I became really isolated from everything. The only thing I kept doing was karate. I lost patience, I was really stressed, cranky, bad humoured. I promised things, but I did not deliver them on time to clients. I would just be so focused on myself and I didn't take care of my marriage. **(Lewis, Initial Interview)**

Lewis summarised the negative impacts as feeling embroiled in high stress and personal strain. The outcomes from his experience were indicated by conflicts in his marriage and his inability to deliver on his commitments:

It was a personal crisis like I've never experienced. But it was amazing. It was one of those enlightening moments. It was awful, but I'm glad it happened. **(Lewis, Initial Interview)**

However, he eventually recognised a benefit from embracing these personal and business outcomes as an opportunity for personal growth. He experienced a *personal crisis* as he eventually realised he missed the mark. He attributed this build up to failure as a contribution of negative impacts, such as being unable to deliver, running out of money and the conflict and separation in his marriage, and personal factors, such as overconfidence. In becoming aware of his actual losses, he accepted his situation, redefined and learned what he felt was most important to him personally. Each of these steps appeared to be precursors to his eventual recovery.

By the time of his first interview, he reported a renewed his relationship with his wife and his recognition of the importance and significance of his marriage:

I decided to first rebuild my marriage, because I knew I had to take care of that. I knew that this drive, this thirst to have to run my own software will always be there, but if I didn't take care of my marriage then and it would be gone forever. **(Lewis, Initial Interview)**

Through this experience, Lewis indicated feeling that his personal issues had been addressed through a renewed focus on his marriage. Then, with personal issues addressed, he expressed feeling ready to engage optimistically with new ideas and future entrepreneurial endeavours.

9.5 Within-Diary Variation

During the diary study, subjective appraisals were repeated longitudinally over the course of the study (18 stages). These subjective measures were taken first as a baseline within the initial questionnaire, prior to the initial interview and diary research (Table 48).

Table 48. Baseline for repeated subjective appraisals (Case 6)

	Question	Short Name	Response
Repeated Measures Baseline	<i>'I am pleased with how my business is doing.'</i>	Business Progress	Somewhat Agree
	<i>'The current context for my business is particularly challenging.'</i>	Challenging Business Context	Agree
	<i>'My business faces a high degree of uncertainty.'</i>	Business Uncertainty	Strongly Agree
	<i>'My business decision making tends to be</i>	Rushed Decisions	Neutral
	<i>'I have accounted for the major issues facing my business.'</i>	Business Factors Awareness	No Opinion
	<i>'My business feels out of control.'</i>	Business Control	Disagree
	<i>'I worry about my business failing.'</i>	Business Failure Worry	Agree
	<i>'I feel equipped to handle the challenges facing my business.'</i>	Equipped for Challenges	Neutral
	<i>'My business makes me feel stressed.'</i>	Business-related Stress	Somewhat Agree
	Further Explanation	No response	

The diary study in this case lasted for 103 calendar days, with each stage representing approximately 6 calendar days.⁸ An overview for all subjective measures and diary stages are presented for the case after the Chapter Summary, as displayed in Table 50.

⁸ Days between diary entries calculated from Stage 2 to Stage 19; \bar{x} =5.72, min=3, max=11

9.5.1 Situation-specific Challenges

Lewis reported salient business challenges throughout the diary study phase of research (11 stages, 61%; see Table 51). These challenges corresponded with his appraisals of business uncertainties, challenging business context, business-related stress, and worry about business failure. Lewis highlighted tensions he felt between demands from his work as a developer, desire for personal fulfilment and capacity to recover after setbacks. Early on, he reported a range of substantial challenges that constrained his entrepreneurial capacity, including an inability to deliver on his commitments (Stages 2 & 3; also 9.4 Catalyst for Change), personal limitations and feeling of uncertain how to proceed with new ideas (Stage 5) and unexpected loss of his primary contract (Stage 8). During the build-up to failure (contract termination), he reported adverse conditions and heightened stress from feeling overloaded. His subsequent decision was to take time off for recovery (Stage 9) and indicated an intention to keep himself more balanced in future endeavours. He began searching for business opportunities (Stage 12) and following successful reengagement in an initial activity (Stage 14) he decided to commit his time and resources towards winning a government competition. He eventually submitted his proposed solution (Stage 17) but continued intensify his commitment by hiring staff he could not afford, putting him in a financially difficult position with added pressure from this working relationship (Stage 18). He finally reported that his proposed solution was not accepted (Stage 19). These challenges corresponded with coping responses to balance his excitement and engagement in new projects and stay within his available financial resources, skills and capabilities. Consistent themes evident in this case was uncertainty in entrepreneurial activities, ambiguity in business decisions and heightened stress. This aligned with explanations in his interviews and accounts during the diary study.

9.5.2 Dynamic Response Patterns

Within-diary appraisals show response patterns for each subjective measure. Stability classifications are grouped based on identifiable classifications, including overall valence, variation and frequency of divergences (Table 49). Stable response patterns include minimal variation and infrequent divergences, while unstable patterns showed high variation and intermittent or longstanding divergences.

Table 49. Grouping of within-diary response patterns (Case 6)

Lewis (Case 6)		Valence	Divergence	Variation	Classification Stability
Group 1	Challenging Business Context (N)	Negative (2)	None (0)	High (2)	Stable (3)
	Rushed Decision-making (N)	Positive (1)	None (0)	Minor (1)	Stable (2)
Group 2	Business Uncertainty (N)	Negative (2)	Acute (1)	High (2)	Stable (6)
	Business-related Stress (N)	Negative (2)	Acute (1)	High (2)	Stable (6)
Group 3	Equipped for Business Challenges	Positive (1)	Intermittent (2)	High (2)	Unstable (4)
	Business Failing Worry (N)	Negative (2)	Intermittent (2)	High (2)	Unstable (4)
Group 4	Business Progress	Positive (1)	Longstanding (4)	Minor (1)	Unstable (5)
	Business Factors Awareness	Negative (2)	Longstanding (4)	High (2)	Unstable (6)
	Business Control (N)	Negative (2)	Longstanding (4)	High (2)	Unstable (6)

Dynamic response patterns for four subjective measures met Stable criteria. Two groups of stable measures were identified. The first group consisted of two appraisals with a consistent valence and only minor variation during the diary study, regardless of reported challenges: Challenging Context and Rushed Decisions. The second group consisted of two measures with acute divergences: Uncertainty and Stress. These appraisals corresponded with short-term fluctuations in his perceptions. Explanations were available through interviews and diary accounts. Alternatively, dynamic response patterns for five subjective measures met Unstable criteria. Two groups of unstable measures were identified. The third group consisted of two measures with multiple fluctuations in Equipped for Challenges and Failure Worry. Finally, the fourth group consisted of three measures characterised by longstanding divergences: Progress, Factor Awareness and Control. These divergences represented changes in perceptions and circumstances.

9.5.2.1 Stable Response Patterns

Dynamic response patterns for four subjective measures were classified as Stable within two separate groups.

(1) No divergences

This first group consisted of two Stable measures: Challenging Context and Rushed Decisions.

(a) *Challenging Business Context*

Lewis provided negative ($f=18$, 100%) appraisals of business context, represented by *agreement* with the statement, ‘*The current context for my business is particularly challenging*’ (Figure 60). Continuity on his appraisals indicated a stable perception of his business context.



Figure 60. Appraisals of challenging business context (Case 6)

Explanations that accounted for this stability were available through diary accounts and interviews. The challenge Lewis presented at Stage 6 culminated in termination of his primary contract at Stage 7. In order to reduce stress, he entered a rest period from Stage 9 to 12 to recover. He began reengaging with opportunities by Stage 13.

The following stages and challenges each had negative appraisals:

1. New government legislation (**Stage 6**)
2. New taxing legislation (**Stage 7**)
3. Contract termination (**Stage 8**)

Coping with the build-up to Failure

Lewis reported a novel challenge at **Stage 6** which he attributed to ‘new government legislation’. His decision in response to this challenge was to take legal action, “I have contacted my lawyer and I am challenging this law.” While uncertain about outcomes, he provided an explanation about his effort to identify alternatives, “I’m trying to find new ways to develop new marketable products. This takes time and energy.” His perceptions at this stage related to external factors, indicated by further negative appraisals of Uncertainty, Stress and Failure Worry. Additionally, his positive appraisals indicated his belief that he might resolve this challenge: Business Progress, Equipped for Challenges and Control.

He reported a challenge at **Stage 7** that extended from his Stage 6 concerns, “New taxing legislation that threatens my livelihood.” In response to this persistent challenge, his decision was to end his primary contract, “I have decided to terminate my contract with my clients.” His anticipated outcome involved locating additional clients, “I am unemployed, and I need to find new clients.” He did not provide an explanation. His negative appraisals included Uncertainty and Stress and positive appraisals of Equipped for Challenges, Factor Awareness and Control.

At **Stage 8**, Lewis continued an account of challenges from Stages 6 and 7 by reporting contract termination, “I was forced to terminate my contract with my clients,” while reiterating his decision, “[...] to terminate my contract after massive inflexibility from my client's finance team.” He had difficulty anticipating outcomes but stated a desire to reengage with developing his own software, “No, I cannot anticipate anything. Chasing the next contract is hard. I'm trying to leave this behind by moving on to develop my own commercial product.” His explanation included a negative experience with his situation, “As I said, in the previous weeks, I am getting tired of chasing the next contract, the next client, and I'm trying to branch out!!” This further aligned with accounts Lewis provided at Stages 4, 5 and 6 regarding market exploration. His diary account included negative appraisals of Uncertainty and Stress.

During his final interview, Lewis explained further his perception of his loss of this government contract as primarily regarding changes in the tax system:

A lot has happened since then. I was working on this government contract I very much enjoyed. I finished the contract at the end of March because of new government regulations which meant that I would get taxed up to 40% of my income. I could not agree to those terms, nor could I get my employer to cooperate with me to reach a middle ground, so I wouldn't get taxed so much. So, I decide to terminate my contract.

(Lewis, Final Interview)

From his perspective, Lewis tried to oppose this regulation and negotiate with his client:

It was two weeks of really intense, trying to negotiate and people just not willing to work with me at all. I just had to take drastic decision of stop earning money. **(Lewis, Final Interview)**

His efforts did not resolve the situation and, as a result, he decided to terminate this primary contract. He indicated a resigned acceptance of the situation and an experience of stress during this period while opposing this change:

I found this incredibly taxing. I felt drained of energy. So, I decided to take three weeks off. **(Lewis, Final Interview)**

Following termination of his contract, he chose to take time to recover. However, Lewis did not have alternative plans or sources of revenue.

(b) Rushed Decisions

Lewis reported overall positive ($f=14$, 88%) appraisals of rushed business decisions. This was represented by his *disagreement* with the statement, ‘My business decision making tends to be rushed’ (Figure 61). While minor deviations to neutral ($f=2$) and skipped stages ($f=3$) were evident, continuity showed his generally stable perception of making rushed decisions.



Figure 61. Appraisals of rushed business decisions (Case 6)

Explanations for this dynamic response pattern were not available in his diary study accounts, although his qualitative interviews provided context to his perspectives:

Acquiring knowledge fast is what I do, it's part of my profession, but I felt like I was taking a huge risk [emphasis added]. I was trying to learn something really fast, I was interviewing people, I was organising this project, I was dealing with my graphic design and I was trying not to

go broke. I felt like everything was getting all around on top of me.

(Lewis, Final Interview)

This account regarded his experiences during later stages in the diary study. His appraisals apparently connected to his self-identity as being a ‘rapid learner’. He indicated coping responses and efforts to reduce the risk of financial difficulties. Lewis presented a number of decisions during the diary study that resulted in his experience of heightened stress, worry about business failure, and loss of control. In this regard, his positive appraisals of rushed decisions were misaligned with his actual circumstances and the range of challenges he faced.

(2) Acute divergences

This second group consisted of two Stable measures: Business Uncertainty and Stress. These measures consisted of minor variations and acute divergence to negative appraisals that corresponded with challenges that Lewis faced.

(c) Business Uncertainty

Lewis reported overall negative ($f=17$, 94%) appraisals of whether his business faced uncertainty. This was represented by *agreement* with the statement, ‘*My business faces a high degree of uncertainty*’ (Figure 62). Apart from one divergence at Stage 4, Lewis reported consistently negative appraisals of business uncertainty throughout the study. Continuity on this measure indicated stable perceptions of business uncertainty.

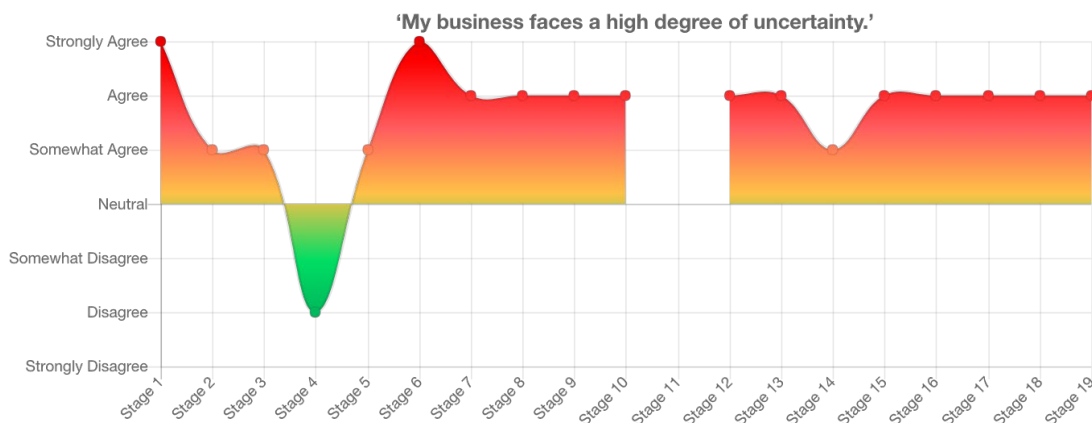


Figure 62. Appraisals of business uncertainty (Case 6)

Explanations were presented in his diary response and a general perception in his final interview helped to account for this stability.

Coping with market uncertainty

Lewis did not specify any challenge with the positive divergence at Stage 4. Rather, he provided an explanation about his effort to identify alternative clients:

My current market, freelance contracting, faces a high degree of uncertainty. I am looking at ways to branch out of freelancing and I'm trying to find a new set of clients. **(Stage 4)**

He indicated uncertainty as a structural barrier preventing progress into his intended market. Except for negative appraisals of Challenging Context and Stress, and a neutral appraisal of Failure Worry, he presented positive appraisals on remaining measures.

In his final interview, Lewis acknowledged a general sense of business uncertainty:

Uncertainty is the only certainty in my line of work just now. **(Lewis, Final Interview)**

This perception provides context for the stable and negative pattern of appraisals on this this measure, which presents a high degree of uncertainty.

(d) Business-Related Stress

Lewis provided overall negative ($f=12$, 67%) appraisals of business-related stress represented by *agreement* with the statement, 'My business makes me feel stressed' (Figure 63). His appraisals fluctuated to neutral ($f=5$, 27%) at multiple stages, but a positive divergence at Stage 13 indicated a situation when Lewis felt less stress than normal. This situation directly followed an intentional period of rest and recovery. Continuity indicated his generally stable and negative perceptions of business stress.



Figure 63. Appraisals of business stress (Case 6)

Explanations that accounted for both stability and shifts in his appraisals were available through diary accounts and interviews. Lewis reported consistent appraisals of feeling stress while engaged with his work throughout the diary study. From Stage 9 to Stage 12, Lewis reported experiences of stress and recovery after his failure experience (contract termination). During this period of recovery, no specific challenges were presented. He began to reengage with entrepreneurial activities at Stage 13 and then appraisals shifted back to negative for the rest of the study.

Recovery after failure

At **Stage 9**, his further explanation included his report of feeling overloaded during the build-up to failure:

I have been so stressed, so tired in the past two weeks that I have decided to take two weeks off. I am not looking for new contract jobs.

However, I am looking at ways to leave contracting behind. **(Stage 9)**

This account referenced his experiences of stress up to contract termination (Stage 8) and his subsequent decision to take time off for recovery. Except for providing a neutral appraisal of Rushed Decisions, all appraisals were negative at this stage.

At **Stage 10**, he provided further explanation of his recovery and actions he was taking to reengage with entrepreneurial activities:

During the past two weeks, I have taken time off. I have not concentrated too much on trying to earn money on the immediate

future. But I am taking steps to form a team of skilled people for a consultancy firm. **(Stage 10)**

He indicated taking time to consider alternative working relationships. In contrast to Stage 9, small shifts were apparent in his appraisals of Business Stress, Equipped for Challenges, Failure Worry, Business Progress and Control, but appraisals of Challenging Context, Uncertainty and Factor Awareness remained negative.

Re-engaging with entrepreneurship after recovery

At **Stage 12**, Lewis provided a further explanation of his time off to recover from that reflected changes in his self-awareness and intentions to keep himself more balanced in the future:

This week I have come back from a 3-week self-imposed rest. It has helped massively. Moving forward, I'm trying to be more aware of myself and try to do less, rather than always trying to fit in more. **(Stage 12)**

He also noted an upcoming 'hackathon' event he would be attending and his goals for participating:

My expectation of this event is to learn, from a consultant's point of view, how to solve problems to which I have had no previous exposure before, how to work with a new team of people, and to have fun and enjoy it. The fact that I am not actively looking for new contracts makes me uneasy. But I'm trying not to let that affect me. **(Stage 12)**

His reported goals for this event included learning to solve new problems, working within a team and enjoying the process of developing solutions. While he also noted concern for additional contracts, this account presented slight improvements following his recovery. At this stage, appraisals of Rushed Decisions and Failure Worry shifted to positive, while the rest appraisals of his appraisals remained negative. This indicated his business uncertainty and self-confidence had not yet recovered by this stage.

At **Stage 13**, he provided further explanation regarding his involvement in this local event:

This hackathon event proved to be a positive experience in giving me confidence to start my consultancy. I might be able to get clients in areas which I wasn't familiar with before the event started. **(Stage 13)**

He indicated a 'positive experience' and general sense of possibility from his participation in this event. Additionally, Lewis expressed increased self-confidence for engaging with a new entrepreneurial endeavour. His appraisals of Stress, Equipped for Challenges and Business Progress each shifted positive, while his appraisals of Business Context and Uncertainty remained negative. His positive appraisals indicated a temporary divergence that followed a period for recovery.

Building from successful re-engagement

At **Stage 14**, Lewis identified a new government competition and decided to engage with the opportunity. His decision in response to this challenge was, "[...] to apply to the [...] challenge" but he felt uncertain about what outcomes to anticipate, "I don't know. I need to understand the challenge and deal with my own anxiety that holds me back." He reported feeling anxious and uncertain about his personal capability, which he explained further:

While I'm super excited about applying for these government contracts, I am super anxious. I'm stressed and I don't want to be. I want to enjoy every step of this process and I need to fight my own tendencies of having too much intensity on everything that I do. I'm learning as I go along on these things. **(Stage 14)**

He highlighted his feelings excitement for engaging in this competition, but he also expressed feeling anxious, stressed and aware of his tendency to intensify efforts after committing to a course of action (also evident from interviews; see 9.4 Catalyst for Change). This corresponded with negative appraisals on all measures, except for a positive appraisal of Rushed Decisions.

His reported challenge at **Stage 15** was associated with his application for this new government competition: "I'm applying for the competition. Last week we were trying to understand the challenges to address." His decision related to gaining more information about the application and how to present his solution: "We watched a

Q&A session and we decided to do a workflow diagram of the functionality.” His anticipated outcome was optimistic: “The workflow diagram is useful to understand our intended solution and we will put that in writing.” While he provided no further explanation, this diary account involved problem-solving actions Lewis was taking that directly related with his engagement in this government competition. At this stage, his only positive appraisals were of Rushed Decisions and Business Progress. While he acknowledged uncertainty leading up to this stage, this appeared limited to specific solutions and subsequent actions.

At **Stage 16**, Lewis reported a challenge and decision associated writing his application for the government competition: “I need to write a submission form for the competition. The deadline is next week.” His reported decision acknowledged the difficulty of coping with this challenge: “This is more difficult than initially thought.” He felt uncertain about what to anticipate but identified his objective: “I don't know. The aim is to be selected and win this competition.” He included a further explanation:

This submission form I need to fill in by Thursday is very, very tricky. It's the first time I'm doing something like this. It's uncharted territory. While I know I'm capable of delivering a solution and winning this competition, channelling all of my ideas through a document using only written words is scary. How do I express my enthusiasm? *I find the whole thing a little bit scary. Having said that, I find every new big step scary* [emphasis added]. (**Stage 16**)

Lewis indicated confidence in his ability to deliver his solution once selected but expressed concern about developing his written response to include his level of interest in this opportunity. His negative appraisals of Business Stress, Uncertainty, and Factor Awareness provided further context for his perceptions.

At **Stage 17**, Lewis reported a challenge of submitting his proposed solution to the government competition. His decision was to spend “[...] countless hours writing the proposed solution.” He expressed optimism about his anticipated outcome, “I am hopeful I will be selected for the next phase,” and provided a further explanation:

I'm quite tired now. I'm trying to rest today. I have recruited my first employee and it was more about securing someone's commitment to my project rather than them volunteering their time to it. I understand, I'd do the same. **(Stage 17)**

While submitting his application by the deadline, his explanation indicated his experience of feeling stress and a decision to rest. At this stage, Lewis provided a positive appraisal of Rushed Decisions, but his remaining appraisals were either negative or neutral.

In his final interview, Lewis highlighted the significance of asking his former employee to support him in the application. She started helping him as a volunteer but later requested payment. He agreed to keep her commitment, despite not having revenue and available financial resources:

I had no income coming in and knowledge of that fact started to stress me. **(Lewis, Final Interview)**

He escalated his commitment of financial resources by paying for help that he thought might strengthen his position.:

It was draining for me, I have to say. I realised that, employing her, she was looking for me for guidance, but I was employing her to go on do whatever she needed to do. I wanted her to leave me alone, so I could carry this forward. She was just constantly coming to me for guidance. [...] At a personal level, I found it draining. **(Lewis, Final Interview)**

This increased his feelings of stress and, along with the steady decline in his savings, created further financial pressure:

But just dealing with her and knowing that I didn't have enough funds it was just fucking stressful. **(Lewis, Final Interview)**

He remained engaged and intensified his commitment to develop a functional product which, according to Lewis, was needed three months after being awarded. At Stage 18, Lewis reported this financial pressure and at Stage 19 he reported that his proposed solution was not accepted, as discussed under Business Control.

9.5.2.2 Unstable Response Patterns

The dynamic response patterns for five subjective measures met Unstable criteria. These variations in his appraisals corresponded with challenges that Lewis faced during the diary study.

(3) Intermittent Divergences

This third group consists of two subjective measures with frequent fluctuations between negative and positive appraisals.

(e) Feeling Equipped for Business Challenges

Lewis provided overall positive ($f=8$, 44%) appraisals represented by his agreement with the statement, 'I feel equipped to handle the challenges facing my business' (Figure 64). His appraisals until Stage 8 were mostly positive, but fluctuated between negative ($f=5$, 27%) and neutral ($f=5$, 27%) after this point for the remainder of this study. This lack of continuity in his appraisals on this measure indicated an unstable perception of his ability to handle business challenges.

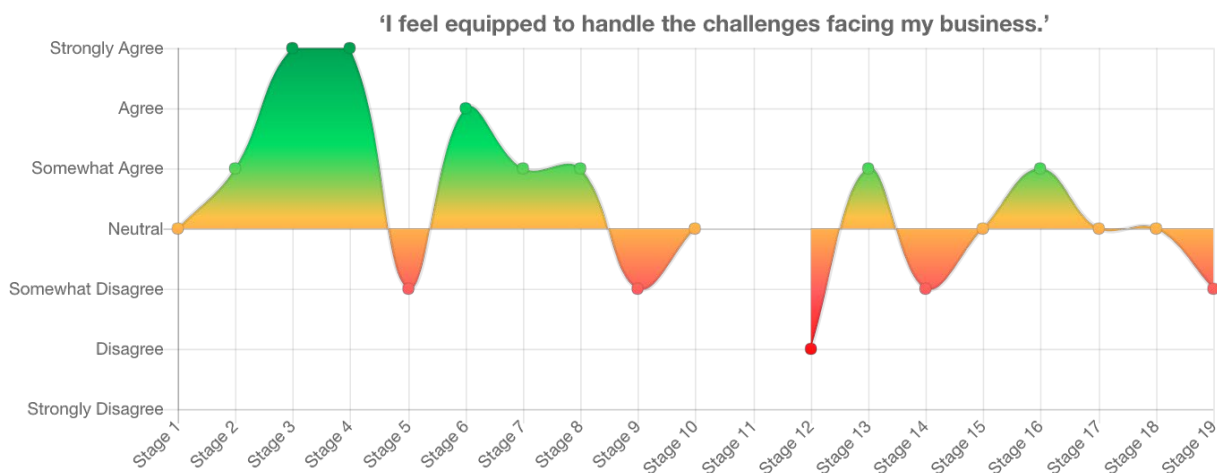


Figure 64. Appraisals of feeling equipped to handle challenges (Case 6)

These apparent fluctuations indicated situations when Lewis did not feel equipped to handle the business challenges he was facing. This dynamic response pattern was closely aligned with his appraisals of Business Progress and Control.

Coping with personal limitations

At **Stage 5**, Lewis did not provide a challenge. Rather, he provided an explanation that continued from his Stage 4 account of his effort to identify alternative clients and explore ideas:

This week I've seemed to make progress as to new ideas for products. I lack knowledge and expertise as to how to move things forward. My full-time contract, plus extracurricular activities means I haven't had time to investigate further. **(Stage 5)**

While indicating 'progress', he reported feeling uncertain about his personal capability and how to proceed with his new ideas. This corresponded with similar concerns shared in his initiative interview (9.3 Entrepreneurial orientation). He provided a positive appraisal of Business Progress, but all other appraisals were negative.

(f) Business Failure Worry

Lewis presented mixed negative ($f=7$, 39%) and neutral ($f=9$, 47%) appraisals of his worry about business failure. His appraisals were represented by *agreement* with the statement, 'I worry about my business failing' (Figure 65). He provided positive ($f=2$, 11%) appraisals at Stages 3 and 12, but the rest of his appraisals fluctuated between negative and neutral. This lack of continuity in his appraisals indicated unstable perceptions of worry about his business failing.



Figure 65. Appraisals of business failure worry (Case 6)

In his final interview, Lewis provided an explanation for failure worry as a longstanding experience:

I worry about the direction my business is going, where the next pay cheque is going to come from and whether what I'm doing brings me fulfilment. It's my ultimate goal of running my own consultancy or software business. That's what I work for, so if I'm not moving towards this then my business is failing. That's how I see it. **(Lewis, Final Interview)**

Lewis explained his sense of worry shifted between concerns for the present (e.g., financial) and future (e.g., personal fulfilment). He confirmed that his motivation and longstanding goal to develop a 'software business' was ultimately tied to his view of personal fulfilment.

(4) Longstanding Divergences

This fourth group consisted of three measures: Business Progress, Business Factor Awareness and Business Control. These measures had high variation and longstanding changes, evident both in his perceptions and circumstances.

(g) Business Progress

Lewis provided overall positive ($f=9$, 53%), but unstable appraisals of his business progress. This was represented by his agreement with the statement, '*I am pleased with how my business is doing*' (Figure 66). His appraisals until Stage 6 were consistently positive but fluctuated after this point between negative ($f=4$, 24%) and neutral ($f=4$, 24%) for the remainder of this study. This lack of continuity in his appraisals indicated an unstable perception of his business progress.

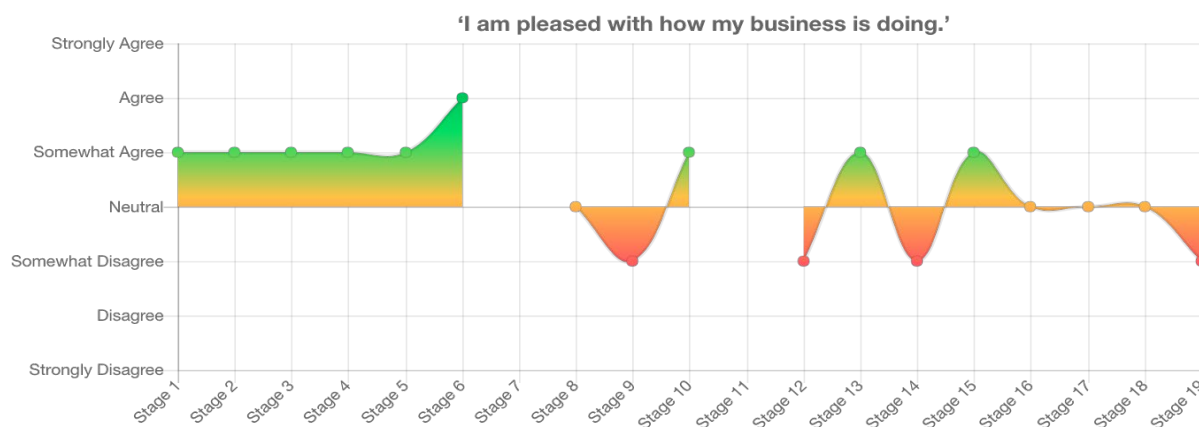


Figure 66. Appraisals of business progress (Case 6)

Explanations aligned closely with Equipped for Challenges and Business Control. The following stages and challenges at the start of the diary study each had positive appraisals of business performance:

1. Meet a product delivery deadline. **(Stage 2)**
2. Alert his clients about not meeting the deadline. **(Stage 3)**

Coping with the build-up to failure

At **Stage 2**, his challenge was to meet a product delivery deadline. His decision was to alert his client: “Be frank with my client and explain that, although I am doing everything I can, I may not deliver in time.” His anticipated outcome was an inability to address this challenge, “I don't think I'll be able to deliver on time.” He did not provide a further explanation. He presented negative appraisals of Business Context, Uncertainty, Stress and Failure Worry that aligned with his anticipated outcome (e.g., failure to deliver). However, his positive appraisals of Equipped for Challenges, Progress, Factor Awareness, and Control indicated optimism.

At **Stage 3**, he reported a challenge that continued from his decision at Stage 2 to alert his clients about not meeting the deadline, despite his intensified efforts: “By working 10 hours a day and realising that even working at that speed is not enough.” He provided an anticipated outcome that his performance would be insufficient but expressed hope that his clients would be sympathetic: “The end client is not happy. My own clients see how hard I have been working and are understanding.” He provided further explanation of his focus on this acute challenge, rather than longstanding goals: “I'm so busy right now. I don't have time to explore new venues

for possible new products.” He maintained his appraisals from Stage 2 but shifted his appraisal of Failure Worry from negative to positive. Explanations were foregrounded in his interviews. In his initial interview, Lewis foregrounded a favourable assessment of his progress and clients’ positive-orientation towards his efforts:

I’m assessing the success in the fact that I am delivering new functionality every two weeks. [...] But I’m using [feedback from] my client. They are very happy with me and with the product I’m developing. They love the user interface. **(Lewis, Initial Interview)**

Lewis stated his generally positive perceptions prior to the diary study, indicating an alignment with his initially positive performance appraisals.

In his final interview, Lewis provided a substantially different explanation to account for his changing circumstances. He reported a meeting with his client where he received feedback:

I was trying to deliver within 10 days. I said I was going to deliver. But I was not doing what my client was asking me to do because she didn't know. *She was completely clueless when it comes to the technology, yet she was advising me on what or how to implement things. I knew that would mean that what she was saying was wrong.* [emphasis added] It was stressful in terms of appeasing her and saying, ‘Yes,’ but then I'm going to do my own thing behind her back. Only after having implemented it, I'd say to her, ‘Actually, this is what I did and look at the benefits.’ **(Lewis, Final Interview)**

Despite the warning signs from his client, Lewis explained his transcendent experience with technology and dismissed the feedback. He reaffirmed his positive business progress and maintained his approach.

Lewis highlighted a similar situation from his ‘first job out of university’ of when he recognised his inability to deliver by the deadline, but avoided alerting his manager until the ‘very last day’:

I can’t blame [my previous clients] completely because, for example, if I was behind, I’d not tell my project manager until the very last day and they would stress and what not. **(Lewis, Initial Interview)**

He noted only alerting his manager once problems became urgent. In hindsight, he acknowledged the stress his manager experienced but reframed responsibility for the outcome to a difficult working environment:

I see what the fault in me was then, but at the same time, it was a company that put a lot of focus on blaming people. **(Lewis, Initial Interview)**

In this way, Lewis foregrounded a longstanding behavioural tendency that emerged in this study. As in these previous situations, he would avoid his managers until faced with urgent problems and acute awareness of negative effects, such as increased work stress, feeling overloaded and threat of failures. This tendency emerged early during this study when faced with an inability to deliver on commitments (see 9.4 Catalyst for change). Despite this *misalignment* between his performance and past outcomes, he maintained a mostly positive view of his business progress.

(h) Business Factor Awareness

Lewis reported overall negative ($f=9$, 56%) appraisals represented by *disagreement* with the statement, ‘I have accounted for the major issues facing my business’ (Figure 67). However, variation during the diary study was evident with positive ($f=5$, 31%) appraisals until Stage 8, followed by a longstanding negative change in his appraisals. The lack of continuity showed an unstable perception.

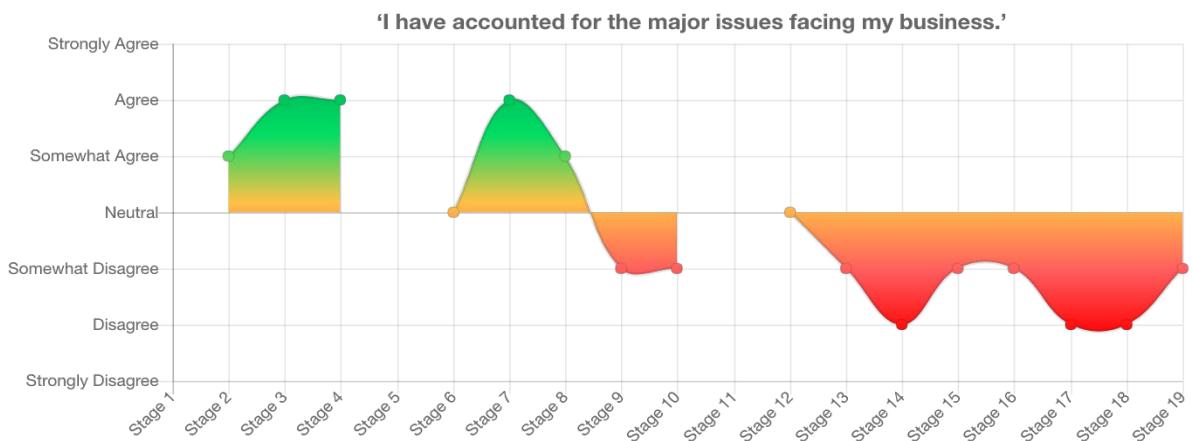


Figure 67. Appraisals of major issues facing business (Case 6)

After Stage 9, he did not present specific challenges until Stage 14, when he indicated his intention to re-engage in entrepreneurial activities (as outlined under Business Stress). This dynamic response pattern also mirrored appraisals of Business Control.

(i) Business Control

Lewis reported overall negative ($f=6$, 33%) appraisals of the control he felt over his business. This was represented by *agreement* with the statement, 'My business feels out of control' (Figure 68). High variation during the diary study was evident on this measure, with positive ($f=5$, 28%) appraisals shifting at the start of the study then after Stage 8 to mixed negative and neutral ($f=7$, 38%). This lack of continuity indicated his unstable perception of business control.

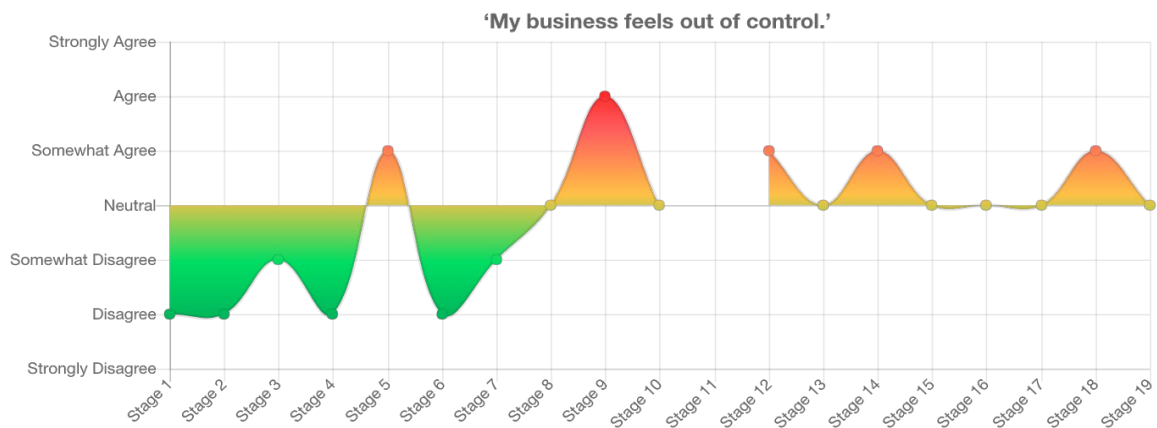


Figure 68. Appraisals of business control (Case 6)

These dynamic response patterns were closely aligned between appraisals of Equipped for Challenges and Business Progress.

Intensifying commitment after reengagement

While Lewis eventually submitted his proposed solution (Stage 17), he continued to engage by intensifying his commitment. At **Stage 18**, the challenge related to his financials and the help he was receiving from his employee:

Money. I have taken a salaried graphic designer and at this very stage I'm uncertain whether she can produce 100% all the time. When she isn't producing, she's stressing that she isn't producing. **(Stage 18)**

He expressed a negative attitude about his employee and her performance. In response to this challenge, his decision was to give "[...] her a contract with very clear expectations." His anticipated outcome indicated his ambivalence, "If she accepts, great! If not, I need to find myself a new graphics designer," but his further explanation indicated that this commitment was becoming a source of stress:

Working with the graphics designer can be a bit stressful. I haven't worked as part of a team for a while, so I need to be able to lead, as well as be able to work on my own. Also, I need to really look at my finances, so I do not lose money. **(Stage 18)**

His attention was on his financially difficult position and added pressure from this working relationship, yet he nonetheless intensified his commitment by forming an employment contract based on speculation.

In his final diary account at **Stage 19**, Lewis reported a challenge that his proposed solution was not accepted: "I am out of the competition. It is a bit of a blow to my hopes and expectations." While he expressed feelings of disappointment, his decision at this stage was primarily based on acceptance of this outcome:

I decided that if I want to start another enterprise adventure, I need to be a little bit more financially stable. I shall find a contract job first, build up my savings, then start again, but trying to avoid the pitfalls from previous experiences. **(Stage 19)**

His response also indicated consideration for a future entrepreneurial endeavour and steps needed to reengage. His anticipated outcome was focused on resolving his current situation: "I need to find a contract job. That's all just now." He recognised a connection between stress and loss of control in his recent experiences:

This competition has been a massive learning curve, in so many aspects I couldn't imagine. It is my first attempt to break free from contracting and into consulting. I know I can make it. I just need to learn to "sell it" to customers. And I need to learn to enjoy every step of the way. Last week was a little bit stressful and I felt I was losing control. **(Stage 19)**

His reported learning consolidated around a need to improve his personal ability to promote and sell his ideas. Lewis expressed his desire for enjoyment and motivation to avoid similar pitfalls in the future.

In his final interview, Lewis expressed his initial excitement about finding a new contract that might allow him to develop his own software:

What I wanted to do was to enjoy every step of it. I started loving it. I just was loving it. I felt so energised because I saw a problem for which

I could offer the perfect solution, and I still believe I can; I believe that my solution was the best solution. **(Lewis, Final Interview)**

Lewis reflected on the gradual loss of control he felt in the final stages of the study:

At times I felt increasingly out of control [emphasis added]. I felt like this challenge was getting a hold of me rather than me controlling it. (Lewis, Final Interview)

From his perspective, he began feeling unable to change his trajectory:

I just felt that I was digging myself a gradual hole... a financial hole. It was quite stressful. The last few days I was really snappy with my wife. [emphasis added] (Lewis, Final Interview)

His negative experiences during the diary study connected to increased financial pressure and negative impacts on his relationship with his wife, a similar pattern that he reported in his first failed entrepreneurial endeavour (see 9.4 Catalyst for Change). He reiterated his intention to behave differently in the future:

On a personal level, I've been trying to shift focus from trying to control things to accepting that certain things can't be controlled and not to stress. That's a personal goal of mine. Either I delegate or accept that I'm going to drop that ball, but not to stress about it. Just be kinder to myself. Be more compassionate with myself. **(Lewis, Final Interview)**

He stated a desire to more readily accept factors outside of his control and believed as a result that he would experience less stress and more enjoyment. The longstanding change in this dynamic response pattern indicated challenges that Lewis perceived as outside of his volitional control.

9.6 Chapter Summary

By the end of the diary study, similar patterns emerged in his subsequent re-engagement with entrepreneurial activities. These similarities include the trajectories leading up to failure, his experience of coping and managing, and personal impacts. Lewis attributed the build-up to failure to a contribution of personal failures and external factors outside of his control. The challenges Lewis reported correspond with coping responses to balance his excitement, engagement in new projects and staying within the constraints of his available coping resources. However, there was minimal evidence in this case that he was learning necessary business skills, nor developing alternative relationships or sources of feedback that might have prevented undesired outcomes in subsequent attempts to reengage with entrepreneurial activities. Indeed, he expressed longstanding concerns about his business knowledge and entrepreneurial capacity. The underlying connection between presented challenges and changes in his appraisals during the diary study indicated *misalignment* between his assessment of opportunities, actions to facilitate his desired outcomes and resources commitment (financial and emotional). Consistent themes evident in this case was uncertainty in entrepreneurial activities, ambiguity in business decisions and heightened stress.

Table 50. Diary study longitudinal measures of subjective assessments (Case 6)

	Stages	Business Challenges	Business Progress	Challenging Business Context (N)	Business Uncertainty (N)	Rushed Decisions (N)	Business Factors Awareness	Business Control (N)	Business Failing Worry (N)	Equipped for Challenges	Business-related Stress (N)
Baseline	Stage 1		Somewhat Agree	Agree	Strongly Agree	Neutral	Skipped	Disagree	Agree	Neutral	Somewhat Agree
Repeated Measures	Stage 2	Yes	Somewhat Agree	Agree	Somewhat Agree	Skipped	Somewhat Agree	Disagree	Agree	Somewhat Agree	Agree
	Stage 3	Yes	Somewhat Agree	Agree	Somewhat Agree	Disagree	Agree	Somewhat Disagree	Disagree	Strongly Agree	Somewhat Agree
	Stage 4	No	Somewhat Agree	Somewhat Agree	Disagree	Disagree	Agree	Disagree	Neutral	Strongly Agree	Strongly Agree
	Stage 5	No	Somewhat Agree	Somewhat Agree	Somewhat Agree	Skipped	Skipped	Somewhat Agree	Somewhat Agree	Somewhat Disagree	Neutral
	Stage 6	Yes	Agree	Agree	Strongly Agree	Somewhat Disagree	Neutral	Disagree	Somewhat Agree	Agree	Somewhat Agree
	Stage 7	Yes	Skipped	Strongly Agree	Agree	Somewhat Disagree	Agree	Somewhat Disagree	Neutral	Somewhat Agree	Agree
	Stage 8	Yes	Neutral	Agree	Agree	Disagree	Somewhat Agree	Neutral	Neutral	Somewhat Agree	Somewhat Agree
	Stage 9	No	Somewhat Disagree	Somewhat Agree	Agree	Neutral	Somewhat Disagree	Agree	Somewhat Agree	Somewhat Disagree	Agree
	Stage 10	No	Somewhat Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Neutral	Neutral	Neutral	Neutral
	Stage 11	No	Skipped	Skipped	Skipped	Skipped	Skipped	Skipped	Skipped	Skipped	Skipped
	Stage 12	Unsure	Somewhat Disagree	Somewhat Agree	Agree	Disagree	Neutral	Somewhat Agree	Somewhat Disagree	Disagree	Neutral
	Stage 13	No	Somewhat Agree	Agree	Agree	Somewhat Disagree	Somewhat Disagree	Neutral	Neutral	Somewhat Agree	Somewhat Disagree
	Stage 14	Yes	Somewhat Disagree	Somewhat Agree	Somewhat Agree	Somewhat Disagree	Disagree	Somewhat Agree	Somewhat Agree	Somewhat Disagree	Agree
	Stage 15	Yes	Somewhat Agree	Agree	Agree	Somewhat Disagree	Somewhat Disagree	Neutral	Neutral	Neutral	Neutral
	Stage 16	Yes	Neutral	Agree	Agree	Somewhat Disagree	Somewhat Disagree	Neutral	Neutral	Somewhat Agree	Somewhat Agree
	Stage 17	Yes	Neutral	Agree	Agree	Somewhat Disagree	Disagree	Neutral	Neutral	Neutral	Somewhat Agree
	Stage 18	Yes	Neutral	Agree	Agree	Somewhat Disagree	Disagree	Somewhat Agree	Agree	Neutral	Agree
Stage 19	Yes	Somewhat Disagree	Agree	Agree	Disagree	Somewhat Disagree	Neutral	Neutral	Somewhat Disagree	Neutral	

Table 51. Business challenges by longitudinal stage (Case 6)

	Stages	Business Challenges	Challenges Addressed	Business Decisions	Anticipated Outcomes	Further Explanation
Repeated Measures	Stage 2	Yes	Delivering to client in a timely manner	Be frank with client and explain that, although I'm doing everything I can. I may not deliver in time.	I don't think I'll be able to deliver on time	
	Stage 3	Yes	Informing my clients and end users that the product won't be released on time.	By working 10 hours a day and realising that even working at that speed isn't enough.	Yes, the end client isn't happy. My own clients saw how hard I've been working and are understanding.	I'm so busy right now I don't have time to explore new venues for possible new products
	Stage 4	No	My current market, freelance contracting, faces a high degree of uncertainty. I'm looking at ways to		branch out of freelancing and I'm trying to find a new set of clients within the it industry	
	Stage 5	No	This week I've seemed to make progress as to new ideas for products. I lack knowledge and expertise		as to how to move things forward and my full time job plus extra curricular activities mean I haven't had time to investigate further.	
	Stage 6	Yes	There's new government legislation that is affecting my livelihood.	I've contacted my lawyer and I'm challenging this law.	I don't know.	I'm trying to find new ways to develop new marketable products. This takes time and energy.
	Stage 7	Yes	New taxing legislation that threatens my livelihood.	I've decided to terminate my contract with my clients.	I'm unemployed and I need to find new clients.	
	Stage 8	Yes	The fact I was forced to terminate my contract with my clients.	I decided to terminate my contract after massive inflexibility from my client's finance team.	No, I can't anticipate anything. Chasing the next contract is hard and I'm trying to leave this behind by moving on to develop my own commercial product.	As I said, in the previous weeks. I'm getting tired of chasing the next contract, the next client. And I'm trying to branch out!!
	Stage 9	No	I have been so stressed, so tired in the past two weeks that I've decided to take to weeks off. I'm not		looking for new contract jobs. However, I'm looking at ways to leave contracting behind.	
	Stage 10	No	During the past two weeks, I've taken time off. I've not concentrated too much on trying to earn money on the immediate future. But I'm taking steps to		for a team of skilled people to form a consultancy firm.	
	Stage 11	No	<i>Skipped</i>	<i>Skipped</i>	<i>Skipped</i>	<i>Skipped</i>
	Stage 12	Unsure	This week I've come back from a 3-week self-imposed rest. It's helped massively. Moving forward, I'm trying to be more aware of myself and try to do less, rather than always trying to fit in more. Having said that, I've joined a weekend Hackathon here in [my local city]. My expectations of this event is to learn, from a consultant's point of view, how to solve problems to which I've had no previous exposure before, how to work with a new team of people, and to have fun and enjoy it. The fact that I'm not actively looking for new contracts, make me uneasy. But I'm trying not to let that affect me.			
	Stage 13	No	The hackathon weekend has proved to be a very positive experience in giving me confidence I can start my consultancy. I might be able to get clients out of this on		areas which I wasn't familiar with before the start of the competition.	
	Stage 14	Yes	[Government agency] are publishing new challenges for anyone to apply for.	I'm going to apply to the challenge.	I don't know. I need to understand the challenge and I need to deal with my own anxiety that holds me back.	While I'm super excited about applying for these government contracts, I'm super anxious. I'm stressed and I don't want to be. I want to enjoy every step of this process and I need to fight my own tendencies of having too much intensity on everything that I do. I'm learning as I go along on these things.
	Stage 15	Yes	I'm applying for the competition. Last week we were trying to understand the challenges to be addressed.	We watched a Q&A session and we decided to do a workflow diagram of the functionality	The workflow diagram is useful to understand our intended solution and we will put that in writing.	
	Stage 16	Yes	I need to write a submission form for the competition.	I'm writing a document on the proposed solution. This is more difficult than initially thought.	I don't know. The aim is to be selected and to win this competition.	This submission form I need to fill in by Thursday is very, very tricky. It's the first time I am doing something like this. It is uncharted territory. While I know I'm capable of delivering a solution, and winning this competition, channeling all of my ideas through a document using only written words is scary. How do I express my enthusiasm? I find the whole thing a little bit scary. Having said that, I find every new big step scary.
	Stage 17	Yes	I've submitted my application form for the competition.	I've spent countless hours writing the proposed solution.	I'm hopeful I will be selected for the next phase.	I'm quite tired now. I'm trying to rest today. I've recruited my first employee and it was more about securing someone's commitment to my project rather than them volunteering their time to it. I understand. I'd do the same.
	Stage 18	Yes	Money. I've taken a salaried graphic designer and at this very stage I'm uncertain whether she can produce 100% all the time. When she isn't producing, she's stressing that she isn't producing.	I've given her a contract with very clear expectations.	If she accepts, great! if not, I need to find myself a new graphics designer.	Working with the graphic's designer can be stressful. I haven't worked as part of a team for a while, so I need to be able to lead, as well as be able to work on my own. Also, I need to really look at my finances so I don't loose money.
	Stage 19	Yes	I'm out of the competition. It's a blow to my hopes and expectations.	I decided that if I want to start another enterprise adventure, I need to be financially stable. I'll find a contract job, build up my savings, then start again, but trying to avoid pitfalls from my previous experiences.	I need to find a contract job, that's all just now.	This competition has been a massive learning curve, in so many aspects I couldn't imagine. It's my first attempt to break free from contracting and into consulting. I know I can make it. I just need to learn to "sell it" to the customers. And I need to learn to enjoy every step of the way. Last week was stressful and I felt I was loosing control.

SECTION 5: CROSS-CASE SYNTHESIS

CHAPTER 10: CROSS-CASE SYNTHESIS

10.1 Introduction

In this study, participating entrepreneurs were enrolled in a diary study that gathered responses to closed-ended and open-ended questions about business adversity, as both single incidents and ongoing challenges. Diary accounts included acknowledgement of facing challenges, explanations for decision-making and coping strategies, anticipated business outcomes and business status appraisals across multiple stages during the data collection period. These longitudinal accounts were augmented by personal and business contextual information gathered with each entrepreneur through semi-structured interviews, with all available data analysed individual-by-individual with a process orientation. Findings for each individual case have been developed idiographically, showing how entrepreneurs' stories unfolded within the bounds of each case. Following an inductive approach to data analysis, as outlined under 3.6 Data Analysis Methods, constant comparative analytic steps underpinned the coding and category development throughout the data analysis. In particular, constant comparison was used to develop integrated results between interview and diary data across cases.

The previous chapters have presented these individual case analyses and within-case results for six participating entrepreneurs, with supporting quotations and illustrative examples from interviews and diary entries to bring each case to life, including their business situations and their perceptions of the wider context and challenges facing them in their linked personal and professional identities. Having already established the qualitative narratives for each entrepreneur in previous chapters, this chapter goes a step further, presenting a cross-case synthesis from the dynamic patterns in the qualitative data and interview extracts. By identifying a complex set of inter-relations between entrepreneurs, findings developed in this chapter are designed to explain variations between multiple cases (see Stake 2006) by going up a level to look at between individual patterns, as a layer above the level of within-individual cases.

This chapter is organised first with presenting an overview of the methodological approach to cross-case synthesis and then by overall analysis of three conceptual drivers for entrepreneurial performance that link with extant literature. Herein, findings are derived from individual cases and grouped under these categories: *External Business Contexts*, *Entrepreneurial Capacity* and *Entrepreneurial Effectuation* (Figure 69):

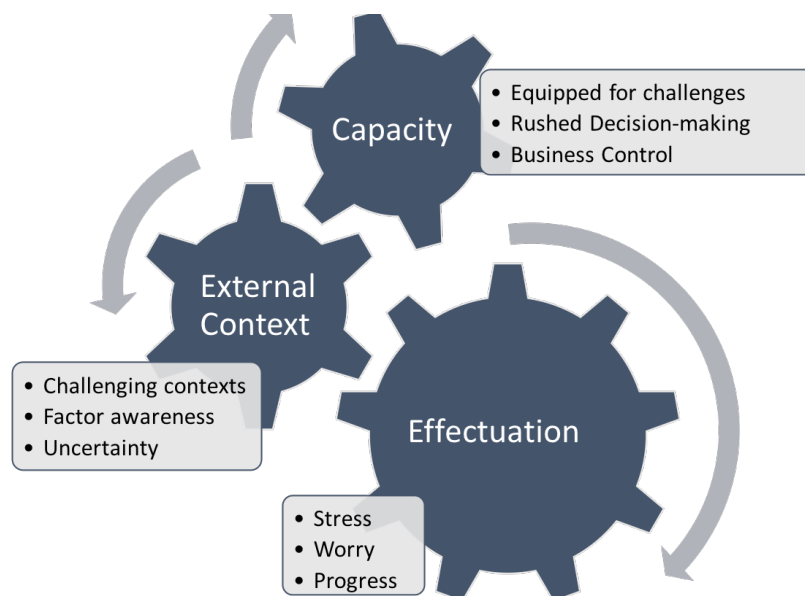


Figure 69. Conceptualised drivers of entrepreneurial performance

Following rationale from the research approach provided in Chapter 3, this synthesis chapter does not seek to develop causal claims, but rather to explicate the dynamic patterns as revealed across cases. The synthesis between cases identifies and consolidates diverging characteristics between entrepreneurial appraisals, personal experiences and business outcomes. This chapter presents further exploration with traditional quantitative approaches to statistical variance while considering differing conditions for when entrepreneurs offered subjective appraisals, including when specific challenges were reported and when no challenges were reported (see Appendix E. Aggregate Statistics Matrix). Explanations are achieved by presenting analytic statements from cases that account for cross-sectional observations and differing levels of longitudinal stability in dynamic response patterns to reveal the combination of factors implicated in entrepreneurial resilience. This synthesis builds from the empirical basis up to conceptual explanations and key insights that address this dissertation's research questions in the final chapter.

10.2 Methodological approach to cross-case synthesis

In adopting an interpretivist epistemology, the individual entrepreneurs' subjective perspectives on their experiences have been at the centre of this research, privileging the research participant's interpretations and meaning-making processes (Nagel, 1974). Furthermore, inductive reasoning begins with specific observations and a process of detecting patterns that may be present, then builds up to explanations (Glaser & Strauss, 1967). To identify and support either explicit or implicit causal claims with credible evidence (Seale, 1999), it is important to maintain a connection to the original data (Miles & Huberman, 1994). This effectively grounds theory in the data (Glaser & Strauss, 1967; Strauss & Corbin, 1998; Strauss, 1987) collected from participating entrepreneurs. The individual case analysis was important to account for the unfolding trajectories within and between entrepreneurs in this study.

This cross-case synthesis is based on journeys of entrepreneurs during the research timeframe throughout product development, commercialisation, venture maintenance or gaining validation for ideas in their local marketplace. This cross-case synthesis started with process questions and the development of a novel classification scheme to explore stability and change (Sminia, 2011) within and between entrepreneurial trajectories (see 3.6.3 Supplementing Inductive Orientation with Process Analysis). In this cross-case synthesis, statements made by entrepreneurs in reported data are separated from analytic statements that seek to explain this data (Seale, 1999). Indeed, Rose (1982) distinguished between concepts used by respondents in navigating their way through their social worlds, and theoretical concepts constructed or applied by the researcher (e.g. Silverman, 1998). Within this multi-case analytic method, the focus is on commonalities and differences between the individual cases without returning to the specific quotations and interview extracts, as these details have already been elucidated in the individual case analyses presented in previous chapters. As such, the process of developing concepts and indicators has been central to the qualitative data analysis undertaken thus far and presented in previous chapters. Thus, comparisons in this chapter include presentation of conceptual similarities, such as similar processes or outcomes, as well as highlighting differences within this diverse set of cases and entrepreneurial phenomena.

Dynamic response pattern classifications

The qualitative and quantitative data from individual cases have been analysed inductively following a constant comparative approach to produce an overarching scheme for systematic classification of dynamic responses across individual entrepreneurs. This cross-case categorisation scheme was converted into rank-order by replacing each category with a numerical value, thereby representing the dynamic narratives inherent within each classification (see Table 52).

Table 52. Dynamic response pattern classification scheme

		Divergence				
		None	Acute	Sporadic	Intermittent	Longstanding
Variation		0	1	2	3	4
None	0	Stable (1)	Stable (4)			
Minor	1	Stable (2)	Stable (5)	Unstable (7)	Unstable (9)	Unstable (11)
High	2	Stable (3)	Stable (6)	Unstable (8)	Unstable (10)	Unstable (12)

These classifications are based on the level of continuity and variation in entrepreneurs' dynamic response patterns. For each classification presented ordinally, values correspond with overall categories summarising the dynamic response patterns, as either stable (1-6) or unstable (7-12) during the data collection period. The dynamic response patterns were classified as *stable* when high continuity, low variation, or infrequent divergences were evident in appraisals during the data collection period; thus, stable views remained consistent throughout the diary study. Alternatively, dynamic response patterns classified as *unstable* when low continuity, high variation or frequent divergences were evident; thus, unstable patterns presented minimal consistency across multiple stages of measurement. Summarising dynamic response patterns in this way provides a full qualitative story behind these numbers.

Meta-matrix of dynamic response patterns

The technique employed for this cross-case synthesis is variable-based stacking, whereby a series of cases are displayed in a meta-matrix by topic (Miles & Huberman, 1994). Each case has been condensed based on applied theoretical concepts (Silverman, 1998) and analytic statements (Seale, 1999) that permit systematic visualisation and comparison across all cases. The aggregate view of dynamic response patterns for each case and subjective measures are represented across several dimensions, as displayed in the meta-matrix in Table 53.

Table 53. Meta-matrix table representing temporal-dynamic characteristics of all subjective variables in rank-order of diminishing stability

		Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Stability		
		Gerald	Benjamin	Richard	Jeremy	Andrew	Lewis	Total	Average	factor
1	Equipped for Business Challenges	4	6	2	2	6	10	30	5.0	0.45
2	Business Performance	1	5	2	2	12	11	33	5.5	0.50
3	Challenging Business Context	10	8	2	6	6	2	34	5.7	0.52
4	Rushed Decision-making	2	6	7	12	6	3	36	6.0	0.55
5	Business Factors Awareness	4	8	2	5	6	12	37	6.2	0.56
6	Business-related Stress	1	8	7	5	12	6	39	6.5	0.59
7	Business Control	4	1	2	12	12	12	43	7.2	0.65
8	Business Uncertainty	9	2	11	12	3	6	43	7.2	0.65
9	Business Failing Worry	2	12	10	5	6	10	45	7.5	0.68
Total		37	56	45	61	69	72			
Average		4.11	6.22	5.00	6.78	7.67	8.00			
Stability factor		0.34	0.52	0.42	0.56	0.64	0.67			

Within-individual variation has been assessed based on dynamic response characteristics as an aggregate frequency of positive (green), negative (red) or neutral (yellow) responses on each outcome measure in the data collection period. Within this aggregate table, a relative rank-order is used to arrange the dynamic response patterns on measures for three values across participants: Total, Average and Stability Factor, which is presented as a Ratio (Sum ÷ Highest possible)⁹. This meta-matrix shows the dynamic story of diminishing stability from top-left (most stable) to bottom-right (least stable). For example, Gerald (Case 1) is presented as most stable across all subjective measures, while Lewis (Case 6) is presented as least stable; additionally, subjective measures are presented in rank-order, whereby most stable is (1) Feeling Equipped for Business Challenges, while least stable is (9) Business Failure Worry. Subjective measures are explored based on similarities and differences between cases, including differing levels of stability, response distributions and analytic statements across cases. Cross-case comparisons have been generated from the synthesis of emerging entrepreneurial phenomena, including both business and personal dimensions.

⁹ Numerical values represent ordinal arrangements of dynamic response patterns and assumptions that are artificially imposed by the researcher; averages should be considered indicative of these ordinal assumptions, *not* of direct measurement.

10.3 Cross-case results: Entrepreneurial External Contexts

This research has explored how entrepreneurial decisions and coping develop within broader external contexts. This contextual layer includes personal, business and environmental factors that impact entrepreneurial performance. An implication is that entrepreneurs’ awareness of factors outside of their business will impact their understanding of the situation. Different dimensions of uncertainty have been considered so far in this study, such as complexity, instability and rapid change. These dimensions are analysed here by looking across each entrepreneur’s diary responses regarding contextual and environmental factors. The three aspects of entrepreneurial performance that relate to *perceptions of external business context* are displayed in a meta-matrix, as seen in Table 54.

Table 54. Meta-matrix of perceptions of external business context representing temporal-dynamic characteristics of subjective variables

		Challenging Context	Factors Awareness	Business Uncertainty	Total	Average	Stability factor
Case 1	Gerald	10	4	9	23	7.67	0.64
Case 2	Benjamin	8	8	2	18	6.00	0.50
Case 3	Richard	2	2	11	15	5.00	0.42
Case 4	Jeremy	6	5	12	23	7.67	0.64
Case 5	Andrew	6	6	3	15	5.00	0.42
Case 6	Lewis	2	12	6	20	6.67	0.56
Total		34	37	43			
Average		5.7	6.2	7.2			
Stability factor		0.52	0.56	0.65			
MOST STABLE		3	5	8			

Along with appraisals of uncertainty, participating entrepreneurs identified contextual and environmental factors across multiple stages of measurement. In this research, entrepreneurs encountered sources of adversity as businesses developed. Adversity was characterised as perceptions of barriers, challenges or constraints – such constraints were often perceived as preventing entrepreneurs’ development or progress towards their business objectives, and therefore, required entrepreneurs’ attention to mitigate or resolve. These sub-sections use multi-case analytic methods to highlight findings in these similarities and differences between subjective appraisals, which have been split based on dynamic response patterns and within-diary variation, grouped by negative and positive appraisals, and further summarised across all cases.

10.3.1 Entrepreneurs' Appraisals of Challenging Business Contexts

This research has explored challenging business contexts faced by entrepreneurs (Baum et al., 2001). The contextual layer has been considered as the sum of essential personal, business and environmental factors that impact entrepreneurial performance (Hitt et al., 2007; Hmieleski & Baron, 2009; Drnovsek et al., 2010; Baron, 2013). Entrepreneurs were asked to provide their appraisals of the following statement:

‘The current context for my business is particularly challenging.’

Findings and explanations from within-case analysis are presented based on entrepreneurs' responses to this statement and as subjective appraisals of Challenging Business Context. Dynamic response patterns in four cases are shown as *stable*, while two cases are shown as *unstable*. On the majority of appraisals, responses in four cases are shown as *negative*, while two cases are shown as *positive* or *mixed* (Table 55).

Table 55. Cross-case matrix of Challenging Business Context

Case	Name	Valence	Variation	Stability	Divergence	Value	Average	5.7
Case 3	Richard	Negative	Minor	Stable	None	2	Total	34
Case 6	Lewis	Negative	Minor	Stable	None	2	Rank order	3
Case 4	Jeremy	Positive	High	Stable	Acute	6	Stability	0.52
Case 5	Andrew	Negative	High	Stable	Acute	6		
Case 2	Benjamin	Mixed	High	Unstable	Sporadic	8		
Case 1	Gerald	Negative	High	Unstable	Intermittent	10		

Responses across cases indicated perceptions of Challenging Business Context as *stable* and *negative*. This was confirmed with a response distribution¹⁰ and overall comparison between negative ($f=65$, 67%) and positive ($f=25$, 25%) appraisals.

This cross-case synthesis includes further comparison between two conditions for appraisals (see Figure 70), when entrepreneurs reported challenges ($f=52$, $M=4.63$; negative) and when they reported no challenges ($f=40$, $M=4.5$; negative). These conditions show no significant difference¹¹.

¹⁰ Challenging Business Context ($f=98$, $M=4.6$, $SD=1.48$)

¹¹ Findings are not statistically significant ($df=6$, $X^2=3.13$, $p=.79$). This means there are no expected differences between observations for each appraisal condition. Total observations ($f=98$) limit accuracy.



Figure 70. Comparison of appraisal conditions for Challenging Business Context

This comparison points towards a negative-orientation and bias in perceptions of business context as challenging. While this revealed an aggregate perspective, an outlying case (Jeremy) presented consistently positive appraisals of business context and a stable response pattern. This comparison of appraisal conditions for Challenging Business Context offers preliminary indication that traditional variance approaches to quantitative metrics may be insufficient when applied to trajectory-based entrepreneurial phenomena.

Explaining positive entrepreneurial appraisals

The synthesis revealed that entrepreneurs who presented positive appraisals of business context tended to express their optimism about available business opportunities and reframe challenges as a sign of growth, such as potential demand for their products or services. In these situations, entrepreneurs recognised challenges as being part of their overall journey in developing their businesses and pursuing opportunities. For example, entrepreneurs across all cases recognised that business growth was dependent on certain activities, such as proposals being accepted by prospective clients, and that this was outside of their control. Those who expressed positive appraisals tended to attribute outcomes, such as eventual acceptance or rejection, to each specific situation rather than as views about themselves or business.

Explaining negative entrepreneurial appraisals

Considering differences between negative appraisals of business context, some entrepreneurs tended to express concerns, such as financial pressures or personal

health, yet reframe challenges as a sign of difficult conditions. These entrepreneurs presented various challenges as being a consequence of limiting factors often outside of their control, such as in pre-entrepreneurship workplaces, economic conditions, personal childhood or upbringing. Such tendencies for external attributions became evident during the diary study and in interviews, when these entrepreneurs identified problems in early life that were similarly attributed to factors outside of themselves. Furthermore, entrepreneurs providing longstanding negative appraisals on this measure did not appear to have alternative plans or sources of revenue when facing specific challenges and tended to indicate difficulty obtaining direction and guidance. Findings indicate that entrepreneurs who expressed negative appraisals tended to support general views about their business context, rather than specific situations.

Summary of findings: Challenging Business Context

Considerations of external constraints were relevant to all entrepreneurs in this study and consistently indicated perceptions of their business context as challenging. Those who reported external constraints also frequently provided negative appraisals, while positive appraisals related more to optimism about business opportunities or a sense of possibility for business growth. When appraisals connected closely to reported business challenges, experiences with re-emerging, sequential and unexpected outcomes became evident including financial pressures, personal health and external attributions. In these cases, entrepreneurs eventually reframed such outcomes as a consequence of challenging conditions. Rather than attributing loss of business opportunities to personal limits, entrepreneurs suggested that difficult factors in the environment had prevented their ideas from taking shape. These entrepreneurs expressed a favourable assessment of job performance during the diary study, despite also acknowledging negative feelings about many of their current experiences.

10.3.2 Entrepreneurs' Appraisals of Business Factors Awareness

This research explored entrepreneur's assessment of issues facing their business. This related to their consideration of external factors that may impact their business or understanding of specific situations (Dess & Beard, 1984; Kirshner & Whitson 1997). Entrepreneurs were asked to provide their appraisals of the following statement:

‘I have accounted for the major issues facing my business.’

Findings and explanations from within-case analysis are presented based on entrepreneurs’ responses to this statement and as subjective appraisals of Business Factors Awareness. Dynamic response patterns in four cases are shown as *stable*, while only two cases are shown as *unstable*. On the majority of appraisals, responses in five cases are shown as *positive*, while one case is shown as *negative* (Table 56).

Table 56. Cross-case matrix of Business Factors Awareness

Case	Name	Valence	Variation	Stability	Divergence	Value	Average	6.2
Case 3	Richard	Positive	Minor	Stable	None	2	Total	37
Case 1	Gerald	Positive	None	Stable	Acute	4	Rank order	5
Case 4	Jeremy	Positive	Minor	Stable	Acute	5	Stability	0.56
Case 5	Andrew	Positive	High	Stable	Acute	6		
Case 2	Benjamin	Positive	High	Unstable	Sporadic	8		
Case 6	Lewis	Negative	High	Unstable	Longstanding	12		

Responses across cases indicated perceptions on this measure of Business Factors Awareness as *stable* and *positive*. This was confirmed with a response distribution¹² and comparison between positive ($f=76$, 72%) and negative ($f=23$, 21%) appraisals.

This cross-case synthesis includes further comparison between two conditions for appraisals (see Figure 71), when entrepreneurs reported challenges ($f=55$, $M=4.7$; positive) and when they reported no challenges ($f=45$, $M=5.0$; positive). Comparisons in these conditions show no significant differences¹³.

¹² Business Factors Awareness ($f=106$, $M=4.9$, $SD=1.48$)

¹³ Findings are not significant ($df=6$, $X^2=7.70$, $p=.26$). This means there are no expected differences between observations for each appraisal condition. Total observations ($f=106$) limit accuracy.



Figure 71. Comparison of appraisal conditions for Business Factors Awareness

This comparison points to entrepreneurs' positive-orientations and bias towards feeling aware of issues facing their business. However, these perspectives were highly aligned with unique entrepreneurial trajectories, indicated by outlying cases (Benjamin, Lewis) with consistently *negative* appraisals of factor awareness and *unstable* response patterns. This comparison of appraisal conditions offers preliminary indication that traditional variance approaches to quantitative metrics may be insufficient when applied to trajectory-based entrepreneurial phenomena.

Explaining positive entrepreneurial appraisals

This synthesis revealed that positive appraisals connected to entrepreneurs' assessments that factors were either within normal parameters or that no new issues required their attention. For these entrepreneurs, efforts were focused on using existing information towards continuing progress in their businesses towards future-oriented goals or objectives. In this way, entrepreneurs presented positive appraisals alongside a tendency to resolve issues or make improvements that were already in progress. Subsequent to gaining an awareness, such as a new demand on themselves or the business, these entrepreneurs would begin, albeit with frequent delays, to take steps towards addressing new issues. Findings indicate that positive appraisals were most connected to entrepreneurs' favourable assessments that existing information or practices would be sufficient to address business demands.

Explaining negative entrepreneurial appraisals

Considering differences between cases, negative appraisals connected to increased vigilance after entrepreneurs reported unexpected or potentially threatening events or setbacks. This sequence was equally apparent in unfavourable (needing new sources of revenue) and favourable (gaining a new contract) situations, as negative appraisals connected with feeling unable to address demands, concerns for missing information or motivation to avoid overlooking existential threats to their businesses. In this way, findings indicate that entrepreneurs provided negative appraisals most often following short-term changes or upon gaining an awareness or perceiving potential threats to themselves or their business.

Summary of findings: Business Factors Awareness

Entrepreneurs had a tendency to continue in their efforts to address issues that were already in progress. This was evident as an overall bias among entrepreneurs to prefer existing information or practices within normal parameters. In situations when emerging issues were identified without personal significance, entrepreneurs expressed ambivalence and dismissed issues not perceived as a threat. As such, processes were identified where changes in perceptions followed after entrepreneurs experienced unfavourable outcomes or negatives effects, such as an impact on performance or awareness of stressors. After this point, entrepreneurs considered their awareness of business factors more closely and attempted to clarify issues or information that was previously missed. Findings indicate that unanticipated events were triggers for uncertainty and efforts improve their awareness of circumstances.

10.3.3 Entrepreneurs' Appraisals of Business Uncertainty

This research has explored different dimensions of uncertainty faced by entrepreneurs such as complexity, instability and change. As a variable within the wider category of *perceptions of external business context*, entrepreneurs were asked in their diary study to provide their appraisals of the following statement:

‘My business faces a high degree of uncertainty.’

Findings and explanations from within-case analysis are presented based on entrepreneurs' responses to this statement and as subjective appraisals of Business Uncertainty. Dynamic response patterns in three cases are shown as *stable*, while three cases shown as *unstable*. On the majority of appraisals, responses in four cases are shown as *negative*, while two cases are shown as *positive*, as displayed in Table 57.

Table 57. Cross-case matrix of Business Uncertainty

Case	Name	Valence	Variation	Stability	Divergence	Value	Average	7.2
Case 2	Benjamin	Positive	Minor	Stable	None	2	Total	43
Case 5	Andrew	Negative	High	Stable	None	3	Rank order	8
Case 6	Lewis	Negative	High	Stable	Acute	6	Stability	0.65
Case 1	Gerald	Positive	Minor	Unstable	Intermittent	9		
Case 3	Richard	Negative	Minor	Unstable	Longstanding	11		
Case 4	Jeremy	Negative	High	Unstable	Longstanding	12		

Responses across cases indicated perceptions of Business Uncertainty as trending towards *unstable* and *negative*. This was confirmed with a response distribution¹⁴ and comparison between negative ($f=57$, 54%) and positive ($f=39$, 36%) appraisals.

This cross-case synthesis includes further comparison between two conditions for appraisals (see Figure 72), including when entrepreneurs reported challenges ($f=55$, $M=4.35$; neutral) and when they reported no challenges ($f=46$, $M=3.48$; positive). While differences are indicated with reported challenges, these conditions show no significant difference¹⁵.

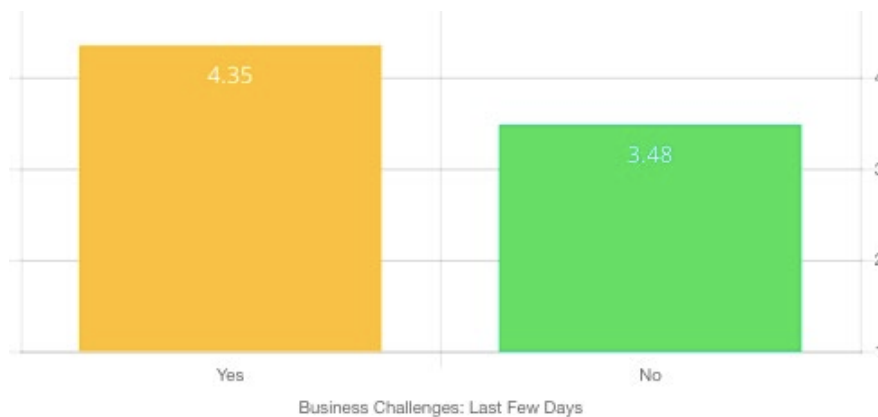


Figure 72. Comparison of appraisal conditions for Business Uncertainty

¹⁴ *Business Uncertainty* ($f=106$, $M=4.07$, $SD=1.87$)

¹⁵ Findings are not significant ($df=6$, $X^2=6.28$, $p=.39$). This means there are no expected differences between observations for each appraisal condition. Total observations ($f=106$) limit accuracy.

This comparison points mainly towards a negative-orientation and bias in perceptions of business uncertainty. While this aggregate perspective, unique trajectories would otherwise be obscured as outlying cases (Benjamin, Gerald) revealed consistently *positive* appraisals and more *stable* response patterns on this measure. Furthermore, this comparison between conditions offers indication that traditional variance approaches to quantitative metrics may be insufficient when applied to trajectory-based entrepreneurial phenomena.

Explaining entrepreneurial positive appraisals

The synthesis revealed that entrepreneurs presented positive appraisals of business uncertainty when feeling confident in favourable conditions, business decisions and their capacity to address challenges effectively. In assessing favourable conditions, entrepreneurs recognised that adversity existed but expressed feeling prepared, such as a result of experiential training or having a broad range of coping resources. Furthermore, entrepreneurs presented positive appraisals when business practices were established and had support to address business challenges. Findings indicate that prior learning was crucial for reducing business uncertainty when faced with routine challenges, while coping resources and skills to self-regulate were crucial for handling novel challenges.

Explaining entrepreneurial negative appraisals

Considering differences between cases, negative appraisals of uncertainty connected with concerns, doubts or limitations when facing new or unfamiliar challenges. These challenges related to a range of business decisions and perceptions of internal resources, external constraints or future outcomes. Entrepreneurs expressed uncertainty about external constraints when perceiving barriers or limiting factors, while internal limitations connected to doubts about business practices and personal capabilities. These dimensions of uncertainty often revealed decision conflicts for how best to handle entrepreneurial activities. Therefore, uncertainty emerged in light of external conditions for businesses growth and in situations when entrepreneurs needed to assess capability for meeting business demands. Findings indicate that negative appraisals of uncertainty were most related to experiences of ambiguity, overload or conflict, yet did not necessarily co-occur with undesirable events or outcomes.

Summary of findings: Business Uncertainty

These appraisals of business uncertainty reported by entrepreneurs in this study connected to singular business activities, essential aspects of entrepreneurial process and business outcomes. Additionally, uncertainty become most apparent as a result of temporal sequences, such as when self-doubts followed unexpected events or outcomes. For example, dimensions of uncertainty were progressively revealed around ambiguous or complicated challenges and changing circumstances, such as how to achieve businesses growth. Indeed, business uncertainty occurred to entrepreneurs primarily as an emerging phenomenon. Furthermore, prior learning held by entrepreneurs were crucial in mitigating uncertainty about entrepreneurial activities as preparation and capability to meet business demands with repeated or routine challenges and achieve reliable outcomes. While coping responses might result in undesirable outcomes, coping resources were crucial for addressing uncertainty around novel challenges, personal limits or business constraints.

10.4 Cross-case results: Entrepreneurial Capacity

This research has explored how entrepreneurial decisions and coping develop within entrepreneurs' self-appraisals of their capabilities. Different dimensions of entrepreneurial capacity have been considered in this study. An implication is that entrepreneurs' estimation of their skills and ability to produce desired or intended results may impact entrepreneurial performance. Additionally, an implication is that entrepreneurs' urgency to perform or perception of outside pressures to respond may impact decision-making and beliefs about control. These dimensions are further considered in this research and explored based on the detailed analysis of six cases, including entrepreneurs' subjective appraisals of these personal factors. The dynamic components of entrepreneurial performance are displayed in a meta-matrix (Table 58).

Table 58. Meta-matrix of capacity appraisals representing temporal-dynamic characteristics of subjective variables

		Equipped for Challenges	Rushed Decisions	Business Control	Stability		
					Total Average	factor	
Case 1	Gerald	4	2	4	10	3.33	0.28
Case 2	Benjamin	6	6	1	13	4.33	0.36
Case 3	Richard	2	7	2	11	3.67	0.31
Case 4	Jeremy	2	12	12	26	8.67	0.72
Case 5	Andrew	6	6	12	24	8.00	0.67
Case 6	Lewis	10	3	12	25	8.33	0.69
Total		30	36	43			
Average		5.0	6.0	7.2			
Stability factor		0.45	0.55	0.65			
MOST STABLE		1	4	7			

Along with appraisals of feeling equipped for challenges, entrepreneurs identified when felt rushed to make decisions and business control over their business during the diary study. This multi-case synthesis highlights similarities and differences between dynamic response patterns for each subjective appraisal, which have been grouped by negative and positive appraisals and then summarised across cases.

10.4.1 Entrepreneurs' Appraisals of Feeling Equipped for Business Challenges

This research has explored how entrepreneurs estimated of their skills and ability to handle instances of difficulty in their businesses and produce desired results. In this sense, entrepreneurs reported adversity as subjective assessments of barriers, challenges or constraints. Entrepreneurs were asked to provide their appraisals of the following statement:

'I feel equipped to handle the challenges facing my business.'

Findings and explanations from within-case analysis are presented based on responses to this statement and as subjective appraisals of Feeling Equipped for Business Challenges. Dynamic response patterns in five cases are shown as stable, while one case is shown as unstable. Overall responses in all cases are shown as positive on the majority of appraisals, while no cases are shown as negative, as displayed in Table 59.

Table 59. Cross-case matrix of Feeling Equipped for Challenges

Case	Name	Valence	Variation	Stability	Divergence	Value	Average	5.0
Case 3	Richard	Positive	Minor	Stable	None	2	Total	30
Case 4	Jeremy	Positive	Minor	Stable	None	2	Rank order	1
Case 1	Gerald	Positive	None	Stable	Acute	4	Stability	0.45
Case 2	Benjamin	Positive	High	Stable	Acute	6		
Case 5	Andrew	Positive	High	Stable	Acute	6		
Case 6	Lewis	Positive	High	Unstable	Intermittent	10		

Responses across cases indicated overall perceptions of Equipped for Business Challenges as *stable* and *positive*. This was confirmed with a response distribution¹⁶ and comparison between positive ($f=87$, 82%) and negative ($f=10$, 10%) appraisals.

This cross-case synthesis includes further comparison between two conditions for appraisals (see Figure 73), when entrepreneurs reported challenges ($f=55$, $M=5.38$; positive) and when they reported no challenges ($f=45$, $M=5.6$; positive). These conditions show no significant difference¹⁷.



Figure 73. Comparison of appraisal conditions of Feeling Equipped for Challenges

This comparison points mainly to positive-orientations and bias towards feeling equipped to handle business challenges. While this aggregate perspective

¹⁶ Equipped for Business Challenges ($f=106$, $M=5.3$, $SD=1.32$)

¹⁷ Findings are not significant ($df=6$, $X^2=1.10$, $p=.98$). This means there are no expected differences between observations for each appraisal condition. Total observations ($f=106$) limit accuracy.

reveals similar patterns between entrepreneurs, an outlying case (Lewis) also reveals consistently *negative* appraisals of feeling equipped and an unstable response pattern. Furthermore, this comparison of appraisal conditions offers preliminary indication that traditional variance approaches to quantitative metrics may be insufficient when applied to trajectory-based entrepreneurial phenomena.

Explaining positive entrepreneurial appraisals

The synthesis revealed that positive appraisals connected to situations when entrepreneurs presented personal strengths, expressed feelings of confidence, and evaluated their capability more favourably. Additionally, positive appraisals extended to expressions of confidence that past personal or professional experience would help them address emerging business challenges and current situations. Furthermore, positive appraisals connected to aspects of entrepreneurs' self-identity, such as being capable of learning new business-related skills when required. Findings indicate that positive appraisals of feeling equipped connected reliably to entrepreneurs' favourable self-assessments of capacity and personal ability to address business demands.

Explaining negative entrepreneurial appraisals

Considering differences between cases, negative appraisals connected most reliably to apprehensions about necessary entrepreneurial capacity, including business-related skills, know-how and coping resources. During the data collection period, negative appraisals were reported alongside expressions of self-doubt, lack of confidence or available resources to manage or control business outcomes. In these situations, entrepreneurs expressed uncertainty that prior training or experience, personal or professional, had sufficiently prepared them to handle the emerging entrepreneurial challenges. Therefore, while infrequent for most entrepreneurs, findings indicate that negative appraisals most reliably connected to entrepreneurs' awareness of personal limitations.

Summary of Findings: Equipped for Business Challenges

Across all cases, entrepreneurs indicated desire for personal and business growth or development. As an effect from this desire to grow, entrepreneurs were often required to step outside their comfort zones and move beyond what felt familiar. For

example, entrepreneurs searching for possible improvements subsequently encountered unfamiliar practices. As a result, they started to gain awareness of further personal and business capacity that would be necessary for more directly addressing entrepreneurial challenges. While this temporal sequence was unique to each individual case, findings indicate *sufficient conditions* for growth followed from entrepreneurs' efforts and actions to improve businesses outcomes.

From a longitudinal perspective, entrepreneurs reported self-awareness of personal limits when they perceived constraints or setbacks that prevented progress towards their business objectives. As a temporal factor, awareness or estimation of personal limits most commonly served a practical purpose for entrepreneurs, self-doubts and concerns about existing practices often *initiated* questioning their business performance. Furthermore, self-doubts often followed reports of business developments, even when positive and favourable. Alternatively, self-doubts became evident while facing *unique, longstanding* and *complex* challenges that entrepreneurs felt unsure how to mitigate. Findings indicate that, in all cases, entrepreneurs' self-assessments of feeling equipped for business challenges were connected strongly to personal beliefs about their ability to meet business demands; however, *accuracy* of these self-assessments emerged primarily as a chain of temporal experiences.

10.4.2 Entrepreneurs' Appraisals of Rushed Decision-making

This research explored pressure that entrepreneurs felt to respond rapidly develop within an 'environment dominated by continual and rapid changes' (Onetti et al. 2010, p.363) and urgency to perform (Baum, Lock & Smith, 2001; Baum, 2004). As corollary to having time to deliberate or explore options, entrepreneurs were asked to provide their appraisals of the following statement:

'My business decision making tends to be rushed.'

Findings and explanations from within-case analysis are presented based on entrepreneurs' responses to this statement and as subjective appraisals of Rushed Decisions. Dynamic response patterns in four cases are shown as *stable*, while two cases are shown as unstable. Overall responses in four cases are shown as *positive*, while two cases are shown as negative and neutral, as displayed in Table 60.

Table 60. Cross-case matrix of Rushed Decision-making

Case	Name	Valence	Variation	Stability	Divergence	Value	Average	6.0
Case 1	Gerald	Positive	Minor	Stable	None	2	Total	36
Case 6	Lewis	Positive	High	Stable	None	3	Rank order	4
Case 2	Benjamin	Positive	High	Stable	Acute	6	Stability	0.55
Case 5	Andrew	Positive	High	Stable	Acute	6		
Case 3	Richard	Neutral	Minor	Unstable	Sporadic	7		
Case 4	Jeremy	Negative	High	Unstable	Longstanding	12		

Responses across cases indicated perceptions of Rushed Decisions as *stable* and *positive*. This was confirmed with a response distribution¹⁸ and comparison between positive ($f=74$, 70%) and negative ($f=14$, 14%) appraisals.

This cross-case synthesis includes further comparison between two conditions for appraisals (see Figure 74), when entrepreneurs reported challenges ($f=52$, $M=3.22$; positive) and when they reported no challenges ($f=40$, $M=2.73$; positive). Small differences are indicated, but conditions show no significant difference¹⁹.



Figure 74. Comparison of appraisal conditions for Rushed Decisions

This comparison points to overall positive-orientation and bias towards not report feeling rushed in business decisions. However, an outlying case (Jeremy) reveals consistently *negative* appraisals of rushed decisions and an *unstable* response pattern. This comparison of appraisals conditions offers indication that traditional variance approaches to quantitative metrics may be insufficient when applied to trajectory-based entrepreneurial phenomena.

¹⁸ *Rushed Decision-making* ($f=105$, $M=3.10$, $SD=1.45$)

¹⁹ Findings are not significant ($df=6$, $X^2=2.78$, $p=.84$). This means there are no expected differences between observations for each appraisal condition. Total observations ($f=105$) limit accuracy.

Explaining positive entrepreneurial appraisals

The synthesis revealed that positive appraisals connected to situations when entrepreneurs reported slow or steady approaches to making business decisions. Additionally, these approaches related to entrepreneurs' intentions to follow long-term plans or response strategies. Indeed, not feeling rushed extended to entrepreneurs' desire to move slowly, stay within available resources and take sufficient time to prepare, find or process information. Furthermore, entrepreneurs had a tendency to delay responses or reassessments for as long as possible, even while acknowledging changing circumstances. As a short-term benefit, entrepreneurs indicated feeling reduced pressure to respond to ambiguous or complex challenges. In this regard, findings indicate that positive appraisals corresponded most reliably with decision-making ambivalence and a willingness to tolerate ambiguity about future outcomes.

Explaining negative entrepreneurial appraisals

Considering differences between cases, negative appraisals connected to entrepreneurs' efforts to respond promptly to day-to-day needs or business demands. Additionally, negative appraisals most related to entrepreneurs' orientations or personal styles of responding to circumstances, rather than as a consequence of specific pressures. The tendency was towards deliberation with overall goals in mind, but constantly reassessing or adjusting plans. These findings also indicate that negative appraisals corresponded with experiences of stress or worry about future outcomes.

Summary of findings: Rushed Business Decisions

Entrepreneurs across cases presented a number of decisions during the data collection period along with issues which they felt influenced their business decisions. In specific cases, entrepreneurs expressed confidence or certainty in their plans and intended actions, despite also providing appraisals corresponding with experiences of stress or worry about future outcomes. From a longitudinal perspective, findings indicate that not feeling rushed to make decisions may offer entrepreneurs' temporary relief by allowing them to delay consideration or take time to deliberate on necessary actions. However, misalignment became increasingly evident over time as pressures in specific cases began to grow without a direct response.

Indeed, findings indicate that a deliberate or steady approach to decision-making may not necessarily relate to entrepreneurs' actual ability to resolve *unique* or *complex* challenges. These findings show an alignment with individual patterns in most cases, whereby entrepreneurs' self-assessments of rushed decision-making, positive or negative, may connect more to dimensions of uncertainty, such as performance and future anticipation, particularly as they become aware of new information, consider their options and assess their ability to respond. Perceiving time limitations seemed to contribute more towards feelings of stress, as all entrepreneurs indicated split focus between multiple commitments and business demands.

10.4.3 Entrepreneurs' Appraisals of Business Control

As a way of understanding their entrepreneurial self-efficacy, entrepreneurs were asked about their assessments of business control. Entrepreneurs were asked in their diary study to provide their appraisals of the following statement:

‘My business feels out of control.’

Findings and explanations from within-case analysis are presented based on entrepreneurs' responses to this statement and as subjective appraisals of Business Control. Response patterns in three cases are shown as stable on the majority of appraisals, while three cases are shown as unstable. Response patterns in four cases are shown as positive on the majority of appraisals, while two cases are shown as negative and mixed, as displayed in Table 61.

Table 61. Cross-case matrix of Business Control

Case	Name	Valence	Variation	Stability	Divergence	Value	Average	7.2
Case 2	Benjamin	Positive	None	Stable	None	1	Total	43
Case 3	Richard	Positive	Minor	Stable	None	2	Rank order	7
Case 1	Gerald	Positive	None	Stable	Acute	4	Stability	0.65
Case 4	Jeremy	Positive	High	Unstable	Longstanding	12		
Case 5	Andrew	Mixed	High	Unstable	Longstanding	12		
Case 6	Lewis	Negative	High	Unstable	Longstanding	12		

Responses across cases indicated perceptions of Business Control as unstable and positive. This finding is confirmed with a combined responses distribution²⁰ and further comparison between positive ($f=75$, 72%) and negative ($f=18$, 17%) appraisals.

This cross-case synthesis includes comparisons between two main conditions for appraisals (see Figure 75), when entrepreneurs reported challenges ($f=52$, $M=2.87$; positive) and when they reported no challenges ($f=40$, $M=2.69$; positive). These conditions have shown no significant difference²¹.



Figure 75. Comparison of appraisal conditions for Business Control

This comparison points to a positive-orientation and bias to report feeling business control. However, these reports appear highly aligned with each entrepreneurs' unique trajectories because this aggregate perspective alone would obscure outlying cases (Lewis, Andrew) that reveal additional experiences related to unstable response patterns and consistently negative appraisals of business control. This comparison of appraisals conditions shows that traditional variance approaches to quantitative metrics are insufficient when applied to trajectory-based entrepreneurial phenomena.

Explaining positive entrepreneurial appraisals

The synthesis revealed that positive appraisals were connected to entrepreneurs' expression of belief in their personal abilities or in situations when they felt control over their business or capacity to competently face business challenges. Findings indicate that entrepreneurs who provided positive appraisals tended to self-identify as capable of learning new business-related skills that might ultimately correspond with

²⁰ *Business Control* ($f=105$, $M=2.84$, $SD=1.45$)

²¹ Findings not significant ($df=6$, $X^2=3.13$, $p=.79$). This means there are no expected differences between observations for each appraisal condition. Total observations ($f=105$) limit accuracy.

more business control. The context for positive appraisals of self-efficacy was provided by entrepreneurs as an orientation to independence, self-reliance and responsibility for personal and business performance outcomes. Findings indicate that accepting factors outside of their control connect with more positive perceptions of business outcomes, lower reports of stress and feeling stimulated by their business.

Explaining negative entrepreneurial appraisals

Considering differences between cases, negative appraisals were not necessarily connected to specific business challenges, but rather related to expressions of self-doubt and uncertainty. Regardless, entrepreneurs' assessment of business control appeared to represent another dimension of uncertainty about personal abilities to work through or manage either novel or longstanding challenges. In this sense, findings indicate that events that might objectively be deemed as favourable (e.g., gaining new contracts leading to business growth) or unfavourable (e.g., loss of contracts leading to worry about business failure) provided entrepreneurs with context for appraisals of self-efficacy, such as feeling capable or equipped to control their business.

Summary of findings: Business Control

Entrepreneurs across all cases in this study indicated an intention and desire to develop personal capacity, look at the big picture more frequently, learn from mistakes and gain more business control. During the data collection period, entrepreneurs' ability to gain control over their businesses appeared connected with their capacity to identify, resolve or otherwise compensate for personal 'weaknesses' that were crucially tied to preventing business progress. Entrepreneurs clarified their perceptions of business control differently after acknowledging personal limits. In this regard, findings indicate that entrepreneurs' understanding of personal limits served a practical purpose in helping them to manage and control their business activities more effectively. These findings also indicate that changes in entrepreneurs' perceptions of feeling capable or equipped for managing their business tended to co-occur alongside changes in their sense of business control.

The differences between entrepreneurs who expressed versus displayed actual control over their business connected with their degree of familiarity and comfort in performing business activities. As an emergent finding, this became evident based on key performance factors, such as prior business experience, that provided levels of exposure to business activities related to those they needed to perform in their current endeavours. Indeed, this emerged for entrepreneurs when they expressed beliefs about agency, choice, and control both during the data collection period and in final interviews when they were prompted with specific situations to offer their reflections. An alignment was necessary between entrepreneurs' beliefs or perceptions and actual control or ability, yet this alignment only became evident as effects they could experience after they had responded to business circumstances where this prior experience had been necessary. Findings indicate that control beliefs or perceptions were more aligned with entrepreneurs' actual control during the data collection period when this prior exposure was also evident.

10.5 Cross-case results: Entrepreneurial Effectuation

This research has explored how performance factors unfold for individual entrepreneurs in light of specific situations, challenges or dilemmas (Deakins & Freel, 1998). Different dimensions of entrepreneurial outcomes or effects have been considered in this study based on experiences reported by entrepreneurs. An implication is that an entrepreneurs' estimation of their skills and ability to produce desired or intended results may impact an entrepreneur's performance (Davidsson, 2007; Frese & Gielnik, 2014). Such factors have been considered in this research as a sequential aggregation that results in entrepreneurial effectuation. These dimensions are further considered in this research and explored based on detailed analysis of six cases, including each entrepreneur's subjective appraisals of these personal factors. Dynamic components of entrepreneurial performance related to *entrepreneurial effectuation* are displayed in a meta-matrix, as seen in Table 62.

Table 62. Meta-matrix of Entrepreneurial Effectuation representing temporal-dynamic characteristics of subjective variables

		Business Performance	Business-related Stress	Business Failing Worry	Total	Average	Stability factor
Case 1	Gerald	1	1	2	4	1.33	0.11
Case 2	Benjamin	5	8	12	25	8.33	0.69
Case 3	Richard	2	7	10	19	6.33	0.53
Case 4	Jeremy	2	5	5	12	4.00	0.33
Case 5	Andrew	12	12	6	30	10.00	0.83
Case 6	Lewis	11	6	10	27	9.00	0.75
Total		33	39	45			
Average		5.5	6.5	7.5			
Stability factor		0.50	0.59	0.68			
MOST STABLE		2	6	9			

Business progress was reported by most entrepreneurs as positive and stable, while appraisals of business-related stress and business failure worry were mostly negative. The following sub-sections use multi-case analytic methods to highlight similarities and differences between subjective appraisals, split based on dynamic response patterns and within-diary variation, and then grouped by negative and positive appraisals, and further summarised across all cases.

10.5.1 Entrepreneurs' Appraisals of Business Progress

This research assessed business performance (Bird, 1989; Low & MacMillan, 1988) through a proxy of entrepreneurs' overall sense of satisfaction with business progress. Entrepreneurs were asked in the diary study to provide to provide their appraisals of the following statement:

'I'm pleased with how my business is doing.'

Findings and explanations from within-case analysis are presented based on entrepreneurs' responses to this statement and as subjective appraisals of Business Progress. Response patterns in four cases are shown as stable on the majority of appraisals, while only two cases are shown as unstable. Response patterns in all cases are shown as positive on the majority of appraisals, while no cases are shown as negative, as displayed in Table 63.

Table 63. Cross-case matrix of Business Progress

Case	Name	Valence	Variation	Stability	Divergence	Value	Average	5.5
Case 1	Gerald	Positive	None	Stable	None	1	Total	33
Case 3	Richard	Positive	Minor	Stable	None	2	Rank order	2
Case 4	Jeremy	Positive	Minor	Stable	None	2	Stability	0.50
Case 2	Benjamin	Positive	Minor	Stable	Acute	5		
Case 6	Lewis	Positive	Minor	Unstable	Longstanding	11		
Case 5	Andrew	Positive	High	Unstable	Longstanding	12		

Responses across cases indicated perceptions of Business Progress as stable and positive. This was confirmed with a response distribution²² and comparison between positive ($f=87$, 82%) and negative ($f=10$, 9%) appraisals.

This cross-case synthesis includes comparisons between two conditions for appraisals (see Figure 76), when entrepreneurs reported challenges ($f=55$, $M=5.85$; positive) and when they reported no challenges ($f=45$, $M=5.96$; positive). These conditions have shown no significant difference²³.

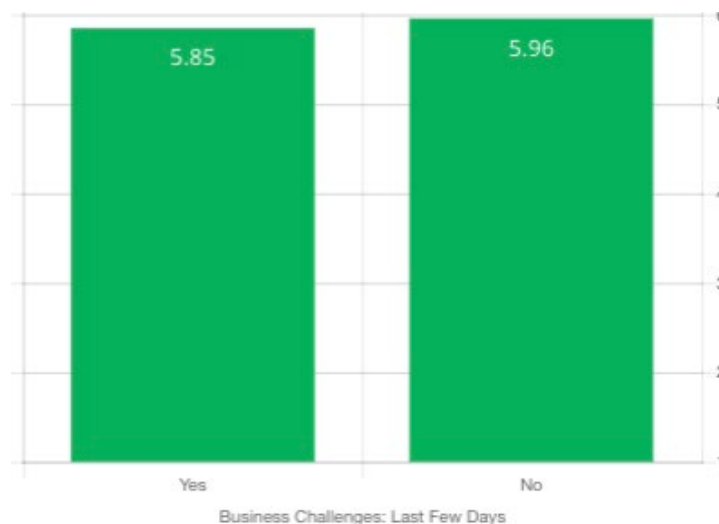


Figure 76. Comparison of appraisal conditions for Business Progress

This comparison points to positive-orientation and bias to reporting business progress. Challenges had minimal impact on entrepreneurs' favourable assessments of business progress. However, this aggregate perspective would otherwise hide outlying cases (Andrew, Lewis) with unstable response patterns or consistently negative appraisals

²² *Business Progress* ($f=108$, $M=5.85$, $SD=1.33$)

²³ Findings are not significant ($df=6$, $X^2=7.70$, $p=.26$). This means there are no expected differences between observations for each appraisal condition. Total observations ($f=108$) limit accuracy.

of business progress. These reports appear highly aligned with each entrepreneurs' unique personal characteristics and business trajectories. This comparison of appraisals conditions shows that traditional variance approaches to quantitative metrics are insufficient when applied to trajectory-based entrepreneurial phenomena.

Explaining positive entrepreneurial appraisals

The synthesis revealed that positive appraisals were connected to entrepreneurs' sense of satisfaction with their business progress. Entrepreneurs referenced dominant contributing factors as subjective feelings of personal well-being. In most cases, positive appraisals in relation to well-being were most evident after entrepreneurs had gained a sense of financial stability in their business or confidence in a secure financial future. This sense of security became evident after entrepreneurs' assessment that sufficient demand existed for their products or services or after receiving financial resources into their bank accounts. These factors connected to a sense that their business endeavours would survive. Furthermore, positive shifts in appraisals helped to provide context for improvements that entrepreneurs experienced personally or in their business situation. These entrepreneurs also expressed their sense of achievement from building their business, expressed feeling stimulated by business activities, and indicated their sense of having made the "right" decisions in starting their business. Such expressions included feelings of pride and accomplishment. They also expressed a feeling that they had greater flexibility and freedom in their choices. These entrepreneurs tended to focus on long-term potential rather than on specific difficulties or challenge that occurred during the data collection period.

Explaining negative entrepreneurial appraisals

Considering differences between cases, negative appraisals were connected to uncertainties, challenging business context and situation-specific challenges unique to entrepreneurs with unstable response patterns. Regardless of overall positive appraisals, entrepreneurs with unstable perceptions tended to report more negative personal experiences when reflecting on progress during and after the data collection period. Dominant contributing factors for entrepreneurs included references to perceptions of financial instability, pressures or stressors from within or outside their businesses and personal relationships. These issues tended to be longstanding, with negative impacts that only were revealed over time as persistent or difficult to resolve.

Most entrepreneurs in this study revealed at least one incident that could be perceived negatively as a warning sign. Indeed, entrepreneurs in a few cases reported meetings with clients or investors in which they received unfavourable feedback about their performance or efforts. Despite warning signs from clients, entrepreneurs who, in these instances, continued to express positive perceptions of their performance also showed a tendency to transcend this feedback, indicated as reaffirmation and maintenance of their preferred approaches. Thus, negative appraisals did not become evident until after entrepreneurs were confronted with the real possibility of an unfavourable outcome, such as recognition of their inability or failure to deliver on commitments. Those who provided negative appraisals reported either having failed to navigate these unfavourable outcomes or felt concern that failure might be an eventual result.

Summary of findings: Business Progress

Entrepreneurs across all cases in this study expressed their passion and drive for their business to succeed. Participants looked for tangible markers of success or reassuring signs to indicate that they were on a positive trajectory. Reflecting on their journeys, entrepreneurs in all cases acknowledged that business progress had been made but suggested that changes in their businesses were not what they expected. These findings indicate that entrepreneurs' ongoing efforts for coping with challenges and decisions had contributed to incremental changes as their business develops that they did not easily perceive while engaged with their businesses.

Additionally, findings indicate the importance of feedback for entrepreneurs across all cases about their business progress. In this absence of feedback, favourable or unfavourable, entrepreneurs were left with their own subjective evaluations of performance. This was shown as a tendency for entrepreneurs in this study to either gravitate towards favourable perceptions or simply maintain their current approach. Such a tendency became particularly evident with entrepreneurs unless feedback connected to perceivable, either immediately or eventually, and unfavourable effects on themselves or their business. Even with initially optimistic views of their businesses, entrepreneurs with unstable perceptions of performance more frequently expressed negative experiences in their businesses. These findings indicate that misalignment between performance appraisals and anticipated outcomes may become

evident to entrepreneurs when they maintain positive perspectives up to a point of failure, such as an inability to deliver on commitments to a client.

10.5.2 Entrepreneurs' Appraisals of Business-related Stress

This research has explored adversity as difficulty faced by entrepreneurs, regardless of their perceptions of external business context or self-efficacy. Entrepreneurs were asked in their diary study to provide their appraisals of the following statement:

‘My business is making me feel stressed.’

Findings and explanations from within-case analysis are presented based on entrepreneurs' responses to this statement and as subjective appraisals of Challenging Business Context. Comparison of response patterns in four cases are shown as stable on the majority of appraisals, while only two cases are shown as unstable. Overall responses in three cases are shown as negative on the majority of appraisals, while two cases are shown as positive and one as neutral, displayed in Table 64.

Table 64. Cross-case matrix of Business-related Stress

Case	Name	Valence	Variation	Stability	Divergence	Value	Average	6.5
Case 1	Gerald	Positive	Minor	Stable	None	2	Total	39
Case 6	Lewis	Negative	High	Stable	None	3	Rank order	6
Case 2	Benjamin	Positive	High	Stable	Acute	6	Stability	0.59
Case 5	Andrew	Negative	High	Stable	Acute	6		
Case 3	Richard	Neutral	Minor	Unstable	Sporadic	7		
Case 4	Jeremy	Negative	High	Unstable	Longstanding	12		

Responses across cases indicated perceptions as stable and negative. This finding is confirmed with a response distribution²⁴ and comparison between negative ($f=45$, 42%) and positive ($f=40$, 37%) appraisals.

²⁴ *Business-related Stress* ($f=107$, $M=3.83$, $SD=1.66$)

This synthesis includes comparisons between two conditions for appraisals (see Figure 77) when entrepreneurs reported challenges ($f=52$, $M=4.0$; neutral) and when they reported no challenges ($f=40$, $M=3.5$; neutral). These conditions have shown no significant difference²⁵.



Figure 77. Comparison of appraisal conditions for Business Stress

These appraisals of business stress were evident as mostly disconnected from challenges faced. Entrepreneurs' appraisals are shown as highly align with individual response patterns, indicated by a wide range of perceptions and experiences related to stress and coping responses. However, an aggregate perspective alone would otherwise obscure outlying cases (Jeremy, Andrew, Lewis) that related unstable response patterns and consistently negative appraisals of business stress. This comparison of appraisals conditions shows that traditional variance approaches to quantitative metrics are insufficient when applied to trajectory-based entrepreneurial phenomena.

Explaining positive entrepreneurial appraisals

The synthesis revealed positive that appraisals were connected with entrepreneurs' perception that responses to adversity in their businesses had been effective. These responses were shown as a connection between entrepreneurs' awareness of challenges, personal requirements for well-being and efforts to mitigate potential negative effects on businesses should a specific challenge persist, or otherwise remain unaddressed. Indeed, across cases with positive appraisals, coping

²⁵ Findings are not significant ($df=6$, $X^2=9.47$, $p=.15$). This means there are no expected differences between observations for each appraisal condition. Total observations ($f=107$) limit accuracy.

strategies became evident as being rooted in personal experience, whereby mistakes or errors in judgement did not define entrepreneurs' perceptions of ability or self-worth. As such, these findings indicate that coping responses had an effect based on entrepreneurs' perspectives of entrepreneurial activities as inherently taking place within a learning process. Therefore, positive and stable perceptions of stress required time to observe both mistakes and achievements, as well as effort to acquire necessary skills and capabilities (i.e., through personal effort or by hiring staff) that was ultimately aligned with entrepreneurs' desired business outcomes.

Explaining negative entrepreneurial appraisals

Considering differences between cases, negative appraisals were connected to personal strain, personal limits or constraints for commercialising their products and services (i.e., improving capacity in production or demand). The nature of work stress that entrepreneurs experienced included feeling overloaded, role conflict, negative relationships and attitudes and concern for lack of involvement from employees. In this regard, entrepreneurs became aware of various stressors after experiencing negative effects, such as an impact on business performance, feelings towards themselves or life outside of work. However, negative appraisals connected to a tendency to intensify efforts, a lack of necessary coping skills to regulate themselves emotionally or business skills to cope with entrepreneurial challenges appropriately. As such, findings indicate that stress followed entrepreneurs' decisions to escalate time, effort and resources as an effect of persistence regardless of emergent experiences with emotional, financial and relational impacts.

Summary of findings: Business-related Stress

The challenges reported correspond across all cases with entrepreneurs' coping responses to balance excitement and engagement in new projects and stay within available financial resources, skills, and abilities. For example, connecting to positive appraisals of performance was apparently a high tolerance of risk in entrepreneurs' willingness to 'gamble', but this seemed disconnected from increasingly tenuous financial situation. These explanations have shown a tendency towards experiencing challenges as stimulating, rather than stressful or depleting. Continuity over multiple stages is best encapsulated in this seeming contradiction between entrepreneurs'

optimistic attitudes towards business progress, despite also acknowledging inherent risks, experiencing stress or feeling uncertain about personal abilities. Therefore, an awareness of likelihood or risk that business challenges that might develop into business revenue shortfalls also needed to connect to entrepreneurs' problem-solving actions to mitigate perceived risks. This was evident either by learning new skills directed at the challenges or by negotiating resources and social support to resolve issues that had arisen as a result.

10.5.3 Entrepreneurs' Appraisals of Business Failure Worry

This research explored entrepreneurs' anticipation of future business outcomes. Entrepreneurs were asked to provide their appraisals of the following statement:

'I worry about my business failing.'

Findings and explanations from within-case analysis are presented based on entrepreneurs' responses to this statement and as subjective appraisals of Business Failure Worry. Response patterns in three cases are shown as stable on the majority of appraisals, while three cases are shown as unstable. Responses in two cases are shown as positive on the majority of appraisals, while three cases are shown as negative and one as equally mixed, displayed in Table 65.

Table 65. Cross-case matrix of Business Failure Worry

Case	Name	Valence	Variation	Stability	Divergence	Value	Average	7.5
Case 1	Gerald	Positive	Minor	Stable	None	2	Total	45
Case 4	Jeremy	Positive	Minor	Stable	Acute	5	Rank order	9
Case 5	Andrew	Negative	High	Stable	Acute	6	Stability	0.68
Case 3	Richard	Mixed	High	Unstable	Intermittent	10		
Case 6	Lewis	Negative	High	Unstable	Intermittent	10		
Case 2	Benjamin	Negative	High	Unstable	Longstanding	12		

In comparison across cases, perceptions of Business Failure Worry are indicated as unstable and negative. This finding is confirmed with a response distribution²⁶ and

²⁶ *Business Failure Worry* ($f=106$, $M=3.93$, $SD=1.81$)

comparison between positive ($f=47$, 45%) and negative ($f=46$, 43%) appraisals.

This cross-case synthesis includes further comparisons between two main conditions for appraisals (see Figure 78), when entrepreneurs reported challenges ($f=55$, $M=3.82$; neutral) and when they reported no challenges ($f=45$, $M=4.11$; neutral); these conditions have shown no significant difference²⁷.



Figure 78. Comparison of appraisal conditions for Failure Worry

While appraisals of failure worry are shown as disconnected from challenges faced across cases, instability in appraisals indicate thresholds for each entrepreneur that may change based on emerging experiences. This aggregate measurement points to an alignment with individual patterns in most cases, whereby appraisals are more connected to each entrepreneurs' unique experiences, trajectories and biases towards anticipated outcomes. Therefore, this aggregate perspective alone would otherwise obscure outlying cases (Jeremy, Gerald) that related to stable response patterns and consistently positive appraisals of failure worry. This comparison of appraisals conditions shows that traditional variance approaches to quantitative metrics are insufficient when applied to trajectory-based entrepreneurial phenomena.

Explaining positive entrepreneurial appraisals

Considering differences between cases, positive appraisals were connected to entrepreneurs' attention on the overall process of building their venture, rather than on setbacks they faced. These entrepreneurs still expressed their circumspection about

²⁷ Findings are not significant ($df=6$, $X^2=1.73$, $p=.94$). This means there are no expected differences between observations for each appraisal condition. Total observations ($f=106$) limit accuracy.

potential risks, but they more often referred to the overall journey or bigger picture. This appeared to help these entrepreneurs acknowledge and accept errors or mistakes in their decisions. Rather than fixating on different decisions or actions that they should have done differently, entrepreneurs with positive appraisals more often referred to past mistakes as learning opportunities or expressed confidence about learning skills they might need.

Explaining negative entrepreneurial appraisals

Considering differences between cases, negative appraisals were connected to entrepreneurs who expressed worry about the likelihood or risk that they might be unable to address setbacks they faced. These entrepreneurs expressed their circumspection about potential risks or concerns that more frequently repeated, such as business revenue shortfalls. In this sense, negative appraisals indicated a personal threshold for expressing worry. In multiple cases, entrepreneurs indicated perceptions of worry as a longstanding experience, having already met personal thresholds by the time of the first interview. These entrepreneurs more often indicated their efforts to suppress worry and refocus on more positive thoughts or responses regarding their circumstances, as well as different decisions and actions.

Summary of findings: Business Failure Worry

In exploring appraisals across cases, this research finds that entrepreneurs' circumspection may be useful in early stages, or in short durations, when challenges may in fact be beyond entrepreneurs' experience or skills to address. Across all cases, an entrepreneurs' perceptions of worry that related to a specific type of challenge (i.e., financials concerns) had more connection to ongoing efforts to resolve the challenge (i.e., improving infrastructure to support sales). Longstanding perceptions of worry became evident over time and with repeated measures, particularly in situations when challenges were *complex* and required an extended amount of *time* to resolve. After recognising they were facing repeated challenges in their business, entrepreneurs who initially held optimistic views started expressing concerns about past mistakes, confidence or skills they might need to learn. In such instances, entrepreneurs' expressions of worry began to align more closely with actual circumstances and inherent challenges in facilitating business growth.

10.6 Chapter Summary

This chapter has expanded from the within-case analyses and findings about individual entrepreneurs presented in previous results chapters to provide a synthesis via cross-case comparisons. The analytic scheme designed to compare developmental trajectories across entrepreneurs in the present study was applied systematically to visualise, explore and explain longitudinal variations between cases. This approach has allowed for comparisons across cases and consideration for differing conditions under which changes in measurement and outcomes have occurred. At an individual level, consistency in appraisals and stable valence indicated a disconnect from specific challenges entrepreneurs faced. Thus, divergences indicated short-term changes in entrepreneurs' perceptions, including experiences with novel or re-emerging, sequential and unexpected factors, challenges or outcomes. These distinctions are important for this cross-case synthesis, which has identified diverging temporal-dynamics and characteristics of entrepreneurs' appraisals during the diary study.

To highlight similarities and differences between subjective appraisals, response patterns and within-diary variation were split, then grouped based on negative and positive appraisals. This synthesis explored how reported challenges impact entrepreneurs' responses on outcome measures using both traditional variance and trajectory-based approaches. Comparisons across all appraisal conditions show that traditional variance approaches to quantitative metrics are insufficient when applied to trajectory-based entrepreneurial phenomena. The longitudinal and process-oriented research approach in this study provide fruitful indications of how entrepreneurs' decision-making, coping and business practices develop in concert and unfold over time. These are further expanded in the next chapter for Discussion & Conclusion.

SECTION 6: DISCUSSION & CONCLUSION

CHAPTER 11: DISCUSSION & CONCLUSION

11.1 Introduction

In this chapter, findings are further derived from Chapters 4 - 9 which present within-case analysis for six participating entrepreneurs and Chapter 10 presents findings from multi-case analytic methods with focus on a synthesis of commonalities and differences between the individual cases. In utilising multi-case analytic methods, the synthesis aimed to clarify how the various strands of empirical research contribute to addressing this dissertation's research questions. In this chapter to follow, findings are further clarified in relation to the research questions set out at the start of this dissertation.

This chapter starts with a summary of findings for research questions (11.2), based on the overarching research question and then four research sub-questions.

The overall research question is:

“How do early stage entrepreneurs' coping strategies and everyday decision-making processes relate to self-appraisals of business performance?”

The four research sub-questions are:

1. “How do entrepreneurs develop decision-making over time as they encounter sources of adversity in their businesses?”
2. "How do early stage entrepreneurs develop coping strategies to overcome everyday sources of adversity?"
3. "What role do coping strategies and evolving decision-making approaches play in entrepreneurs' appraisals of their business performance and personal capacity?"
4. “How do entrepreneurs' coping and decision-making practices affect their capacity to overcome one-time, intermittent and persistent sources of adversity?”

This chapter then continues to a discussion of (11.3) Contribution to literature and (11.4) Limitations and (11.5) Conclusion.

11.2 Summary of findings for research questions

The following section addresses the summary of findings with an overall research question and research sub-questions that follow in this section. The overall research question in this dissertation focused on links between coping strategies, decision making and self-appraisals of business performance:

How do early stage entrepreneurs' coping strategies and everyday decision-making processes relate to self-appraisals of business performance?

Systemic patterns of entrepreneurial activity

Singular business activities and sequences were commonly observed within and between entrepreneurs, yet varied only depending on the specific stage of business during observation. This elucidated systemic patterns to entrepreneurial process which include the following sequence of business activities²⁸:

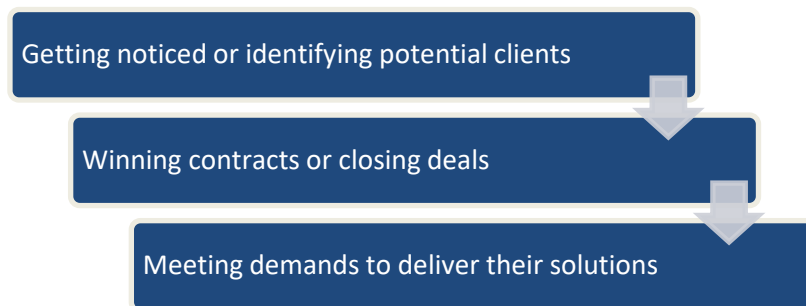


Figure 79. Systemic pattern of entrepreneurial activities

Additionally, the sequence of these business activities was so frequent and recurring that they may be considered essential aspects of entrepreneurial process. However, all entrepreneurs in this present study reported their recognition that these business activities had, at some point previously, felt new and unfamiliar. And yet, the learning that helped entrepreneurs the most emerged throughout the study in relation to the challenges and setbacks they faced.

²⁸ Nature of these business activities are derived from the cross-case synthesis. Further descriptive explanations have been added to **Appendix D. Entrepreneurial activities descriptions**

11.2.1 Entrepreneurial decision-making with emerging adversity

The research investigated how entrepreneurial decision-making operates as a developmental capacity to respond appropriately to business challenges to produce desired results. The following sub-question was posed at the outset of the project:

"How do entrepreneurs develop decision-making over time as they encounter sources of adversity in their businesses?"

In exploring this research question, findings in this study indicated entrepreneurial decision-making as an inherently dynamic capacity, which takes shape over time in relation to entrepreneurs' perception of challenges and desired performance. Entrepreneurs frequently needed to make decisions to determine the direction of their innovation or venture. As such, entrepreneurs made a number of business decisions, with the diary data showing how issues or factors influenced their business decisions.

Decision-making conflicts around adversity

All participating entrepreneurs indicated split focus between multiple commitments and business demands. Decision-making conflicts emerged prominently in this present study. For example, entrepreneurs indicating minimal decision-making conflict or ambivalence may report having awareness of adversity, feeling activated in response to its risk, understanding viable solutions, while also knowing effective solutions. While this configuration was uncommon in this study, as a singular snapshot, such a self-report would not necessarily be indicative of dynamic decision-making. Because decision-making conflicts were frequent for entrepreneurs participating in this research, revealing underlying causes as *misalignments* depended on extended observation windows. The following were all evident as configurations indicative of *misalignment* and, therefore, decision conflicts:

1. Adversity may *not* exist, yet entrepreneurs incorrectly assess the situation;
2. Adversity may exist but entrepreneurs may *not* be aware or have capacity to assess the situation accurately;
3. Entrepreneurs may be aware of adversity yet feel ambivalence towards the risk;

4. Entrepreneurs may understand the risk but be unaware of viable business solutions or unable to match resources sufficiently;
5. Entrepreneurs may be aware of viable solutions but feel unable to predict most effective solutions or solutions misalign with adversity;

Anticipated outcomes were seen as achievable depending on relative alignment of these static assessments. Even as a static visualisation, this provides useful information for understanding possible pathways for decision-making that may develop *after* encountering adversity in their business (see Figure 80).

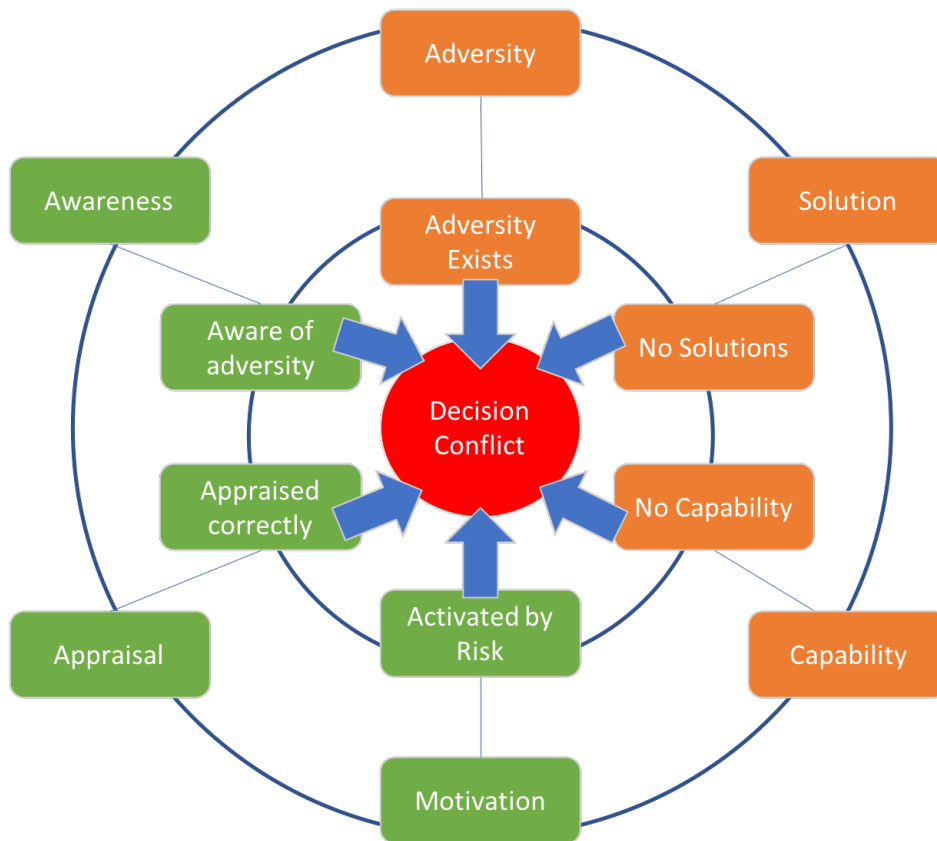


Figure 80. Decision-making conflict as static (snapshot)

As such, decision-making was most often addressed via entrepreneurs' deliberation about the challenges, including available or necessary resources. For example, developing certain capacities, relationships or solutions may resolve decision conflicts in subsequent stages as entrepreneurs learn to address adversity. Therefore, precursors to decision-making, actual decisions, and consequences of decisions were each observed to unfold over time. Encountering decision-making conflicts around *unique* and *complex* sources of adversity required entrepreneurs to develop of capacity

with reference to future-oriented goals or objectives. This capacity was either misaligned or latent until entrepreneurs faced decisions requiring them to determine the direction of their innovation or venture.

For this reason, the following proposition may be derived:

Proposition 1: Encountering decision-making conflicts around *unique* and *complex* sources of adversity will require development of latent capacity with reference to future-oriented objectives.

Therefore, distinctions are indicated as entrepreneurs may further make time for deliberation of factors, such as pre-planning, with reference to their future goals or objectives. Indeed, this ‘deliberation’ was often the *de facto* challenge after entrepreneurs recognised decision conflicts that required their attention. Such deliberation related to efforts to either establish plans or follow long-term response strategies, including intentions to move slowly, make commitments, stay within available resources or take sufficient time to find the right information prior to making decisions. Therefore, decision conflicts take shape over time in relation to entrepreneurs’ latent capacity, resources, perception of adversity and desired performance outcomes.

Decision-making ambivalence and circumspection

There was a consistent tendency for entrepreneurs to dismiss or temporarily ignore issues they did not perceive as an immediate threat. For example, this initially beneficial response of slow decision-making in terms of short-term stress became increasingly problematic over time as pressure for entrepreneurs began to grow in the absence of their direct response. Alternatively, entrepreneurs who reported not feeling rushed in difficult situations did not necessarily make better decisions. In fact, a slower approach to decision-making was not found to offer any benefits to the entrepreneur’s actual effectiveness in resolving *unique* or *complex* challenges over time.

The following proposition may be derived:

Proposition 2: Sources of adversity NOT perceived by entrepreneurs as immediate threats will be dismissed or temporarily ignored contingent on awareness of pressures for direct response.

Indeed, entrepreneurs were more likely to ignore issues they were already aware of and were often slow to address issues that fell within what they had come to see as normal parameters for themselves and their business. Novel issues or concerns were regarded as having greater importance than issues they were already oriented towards. Such tendencies to feel ambivalent in decision-making responses were common from entrepreneurs facing adversity. They would sometimes express confidence or certainty in their plans and intended actions, despite also indicating stress or worry about future outcomes. In certain situations, earlier assessments of adverse situations were revealed to be inaccurate, such as when adversity exists but entrepreneurs are not aware or feel ambivalence towards the risk.

Decision-making pressures and dynamic capacity

Entrepreneurs' efforts to respond promptly to day-to-day business needs can be associated with greater decision-making pressure and stress. In this study, entrepreneurs who felt low pressure to make decisions or respond found short-term benefits, such as helping them tolerate ambiguity around complicated challenges. Entrepreneurs also indicated their tendency towards delaying reassessment of plans for as long as possible, even when acknowledging changing circumstances. From a longitudinal perspective, not feeling rushed to make decisions may offer entrepreneurs temporary relief by allowing them to delay or take time to deliberate on necessary actions. Therefore, appraisals in most circumstances connected to entrepreneurs' personal styles of responding to challenges and changing circumstances, rather than as a result of specific pressures they felt towards making decisions. Reducing decision pressure appeared dependent on relative configurations among influential and continuously shaping factors as an interplay between entrepreneurs' dynamic capacity, as experiential training and development of know-how, discernment and accuracy of situational assessments, and a broad range of coping resources (see Figure 81).

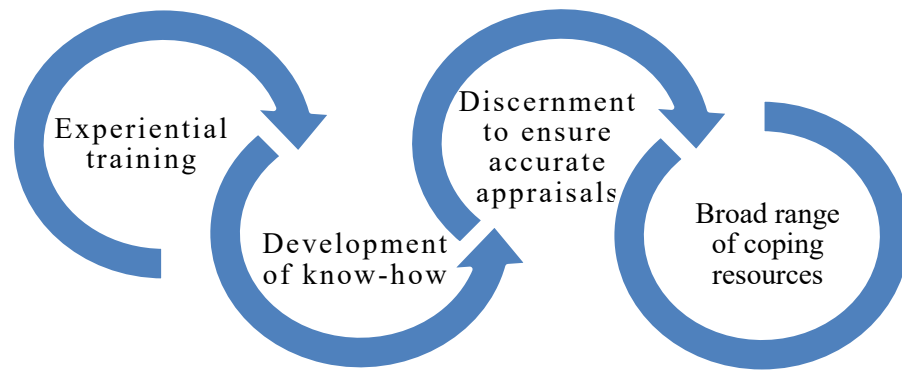


Figure 81. Interplay of dynamic capacity and decision pressure

Considering further longitudinal sequences, pressure was also observed to subside in situations when business revenue stabilised. Furthermore, stimulating effects of pressure appear to be contingent on perceptions and short durations, particularly in circumstances where worry and stress regarded *potential* consequences.

From this rationale, it is evident that the following proposition may be derived:

Proposition 3: Decision-making pressure will be contingent on relative configurations of dynamic capacity and coping resources.

11.2.2 Entrepreneurial coping strategies to address challenges

This dissertation has explored the role of entrepreneurial coping strategies in the development of business trajectories. The following sub-question focused on this dimension:

“How do early stage entrepreneurs develop coping strategies to overcome everyday sources of adversity?”

In exploring this research sub-question, findings in this study indicated important conceptual distinctions between entrepreneurial decision-making and coping strategies for early stage entrepreneurs.

Managing effects of stress and coping with ambiguity

In this study, coping strategies reflected a range of coping resources and different ways entrepreneurs prepare and respond to challenging situations with the goal (implicit or explicit) to reduce external pressures on themselves or their businesses. However, coping strategies were *not* necessarily explicitly communicated, intentional or acknowledged. Changes in appraisals of stress often connected to the realisation or awareness of potential negative consequences for themselves or their business, which then triggered entrepreneurs' actions and responses. Stress effects experienced by entrepreneurs frequently connected to intensified efforts, a lack of necessary coping skills to regulate themselves emotionally or business skills to handle challenges appropriately. The nature of work stress that entrepreneurs most often experienced includes the following:

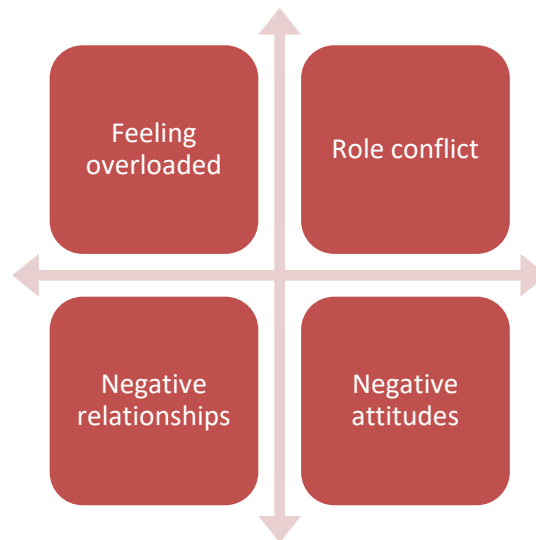


Figure 82. Characteristics of work stress

Coping responses observed in this study were often connected to entrepreneurs' uncertainty or ambiguity emerging as a chain of temporal sequences, such as doubts that followed unanticipated events or outcomes. A degree of ambiguity, stress or frustration for entrepreneurs often followed unexpected events when negative effects on performance felt real but causes or solutions were unknown (see Figure 83). In this situation, entrepreneurs activated coping responses to either clarify the challenge (e.g., problem analysis) or reduce negative feelings (e.g., emotional regulation). Ambiguity about specific challenges often prevented entrepreneurs from taking direct actions.

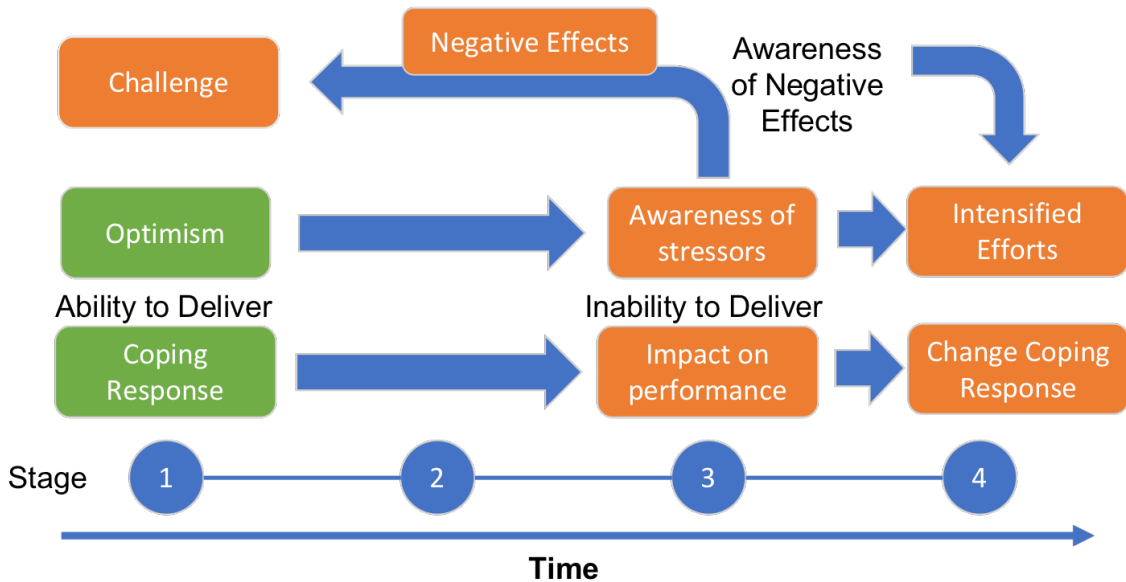


Figure 83. Time-lagged coping response to negative effects

Processes were identified whereby stress effects were apparent following entrepreneurs' decisions to escalate commitments of time, effort and resources to achieve particular goals. After stressors were appraised, entrepreneurs used decision-making and coping responses in their attempt to resolve the challenge or recover the situation. Problem-focused coping was only available to entrepreneurs after problems were identified. In this regard, entrepreneurs' awareness of stressors emerged in *proximity* to their experience of negative effects, such as feeling overloaded, negative thoughts about themselves or others, and experiencing role conflicts, such as responsibilities outside of their business as spouse or parent. Entrepreneurs' efforts to reduce negative effects were apparent alongside effectuation of coping responses.

The following propositions may be derived:

Proposition 4a: Effectuation of coping responses to reduce negative effects on performance will be contingent on entrepreneurs' dynamic capacity and assessment of adversity.

Proposition 4b: Entrepreneurs' coping strategies and intensified efforts will be contingent on their perception of constraints and negative effects.

This sequence is indicated in dialectic processes, as challenges and conflicts become central focus to understanding how continuity is achieved and which practices are enacted become paramount.

Coping strategies & build up to failure as temporal sequelae

Coping strategies were observable as the starting point for overall decisions and coping response sequences, rather than as isolated or singular responses. When entrepreneurs started an overall sequence of coping responses, they used preferred or familiar approaches in their preliminary response, such as *logical analysis*, *affective regulation* or *direct action*. This preliminary response often reflected entrepreneurs' automatic responses to challenges or following appraisals. While uncertainty could be determined as following entrepreneurs' intentions and actions to improve their businesses, results from the temporal sequence revealed entrepreneurial capacity and the effectiveness of coping responses. Subsequently, seeing that initial responses were ineffective, entrepreneurs either continued with their preferred response or reluctantly changed responses. This sequence iterated until entrepreneurs either give up, learned new approaches or believed they had resolved the problem. Entrepreneurs expressed relief when they thought a challenge was resolved and frustration when challenges were persistent, except for occasions when they expected the challenge as routine for their business or as aspect part of entrepreneurial process. In cases with repeated or routine challenges, entrepreneurs who had seen challenges before also tended to indicate having experience with how to handle them.

The following proposition may be derived:

Proposition 5: Resolving challenges will be contingent on recognition of effective responses and capacity to meet business demands.

In this sense, substantial congruence was evident between decision-making biases and coping responses. Subsequently, entrepreneurs were able to understand if their first response had been effective. From this, they either continued with their preferred response or changed responses, albeit reluctantly in most cases. This sequence continued until entrepreneurs gave up (i.e., passive attempts to tolerate the situation) or believed the problem had been resolved.

The following proposition may be derived:

Proposition 6: Sources of stress as prominent indicators of risk will be contingent on entrepreneurs' coping resources.

Findings show that stress effects can aggregate for entrepreneurs from multiple sources. Indeed, as entrepreneurs responded to challenging situations, eventual build up to failure was best attributed to the contribution or combined effects of multiple stressors and negative impacts, such as simultaneously being unable to deliver, running out of money and personal challenges. For example, causes were evident as severe decision conflicts, such as uncertainty about which problems to prioritise, overconfidence in ability to deliver or unmanageable personal factors, such as marriage separation. While these observations were infrequent, conditions for failures were evident (Cases 5 & 6), whereby personal factors and severe financial pressures converged with perceptions of poor capacity for resolutions. Nonetheless, it should be emphasised that *all* entrepreneurs in this study experienced pressures in coping with financial difficulties and feeling unable, at times, to mitigate associated risks with entrepreneurial activities.

The following proposition may be derived:

Proposition 7: Build-up to failure will be contingent on a cumulative series of situationally inappropriate responses that aggregate from ‘negative’ effects.

This research focused on development of methods capable of visualising pathways to the build-up to entrepreneurial failure. In this regard, build-up to failure may best be understood as a cumulative series of situationally inappropriate decisions and coping responses that aggregate from ‘negative’ effects or outcomes in relation to entrepreneurs’ future-oriented goals or objectives. In such instances, entrepreneurs’ expressions of worry indicated awareness of negative effects, actual circumstances and the necessity of changing their responses.

11.2.3 Entrepreneurial appraisals of business progress

This dissertation has explored entrepreneurial appraisals (i.e., meaning-making) as an entrepreneurs' subjective evaluation of their capacity to produce desired results. The following sub-question was posed to highlight the role of entrepreneurs' appraisals of business and personal progress:

“What role do coping strategies and evolving decision-making approaches play in entrepreneurs' appraisals of their business performance and personal capacity?”

In exploring this research sub-question, entrepreneurial performance shapes over time in relation to personal capacity.

Appraisals across a dynamic nexus of performance factors

Entrepreneurs in study indicated their desire to grow or develop their business performance. As such, entrepreneurs frequently scanned across multiple levels of environmental, business and personal factors to determine the accuracy of opportunities assessments, appropriateness of resources commitments and alignment of their actions with desired performance. When appraisals were hierarchically integrated and aligned with conditions and specific circumstances, entrepreneurs were more capable of facilitating their desired outcomes. This dynamic nexus of performance factors was relevant in all cases (see Figure 84).

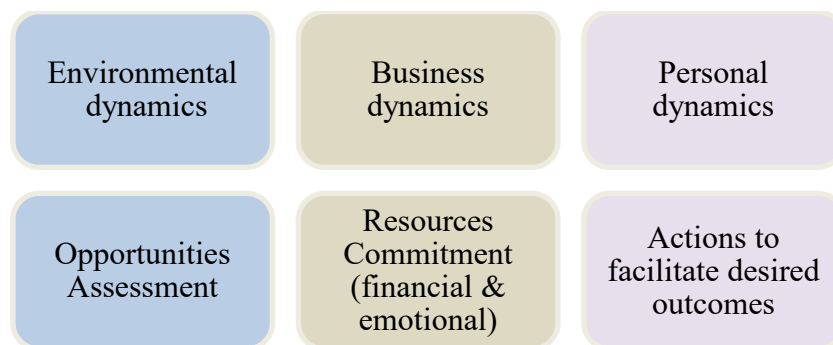


Figure 84. Dynamic nexus of performance factors

However, entrepreneurs tended to commit financial and emotional resources when they decided that opportunity assessments were favourable. As a consequence of their commitment of resources, progressive increases in stress, decision-making pressures and failure worry became evident for entrepreneurs. For example, Gerald (Case 1) perceived himself as having a general demeanour towards low stress and self-assurance, but this could be better attributed to personal development that took place prior to his entrepreneurial endeavour. Alternatively, Lewis (Case 6) desired to have low stress and self-assurance but he was significantly impacted by longstanding personal tendencies that also developed prior to his opportunity assessments.

The following proposition may be derived:

Proposition 7: Entrepreneurs' decision-making and coping strategies will be contingent on accuracy of opportunity appraisals across multi-levels.

Entrepreneurial resilience emerged as a personal capacity to adjust expectations of business opportunities and responses to and setbacks.

Optimistic appraisals & adverse conditions

Entrepreneurs often expressed a favourable assessment of progress, despite also acknowledging negative feelings about current experiences. For example, entrepreneurs in all cases engaged in activities related to finding revenue sources or making plans for securing contracts or investments; however, these activities were juxtaposed with personal experiences in coping with financial pressure (i.e., running out of money), self-doubt or inadequate support (i.e., feeling overloaded). Entrepreneurs who expressed worry about future outcomes still expressed optimistic appraisals that their businesses would work out over time; this was often despite expressions of expressing uncertainty about how this might be achieved in the present moment. Indeed, decision-making biases were best indicated from appraisals about entrepreneurial capacity and business progress that consistently remained optimistic regardless of perceptions of adverse external-structural factors, effects of stress or circumspection about future outcomes; however, lacking the perception of negative effects, this optimism was conducive to entrepreneurs' development and progress towards future-oriented goals and objectives.

Thus, the following propositions may be derived:

Proposition 8: Optimism appraisals and persistence in entrepreneurial trajectories will be contingent on awareness of stressors and impacts on performance.

Entrepreneurs experienced the tension between persistent limitations and longstanding business challenges as inducing stress. Entrepreneurs reported a sense of personal limitations when they perceived constraints in their business which they felt unable to mitigate or resolve; whereas, entrepreneurs who felt capable of handling constraints also reported feeling they could achieve their goals. This relative alignment between perceived capacity and business constraints also connected with their search and acquisition of coping resources, which then determined the extent to which entrepreneurs were effective in preventing or minimising negative impacts from a failed response.

Alignment of appraisals between circumstances and progress

Entrepreneurs expressed passion for their business to succeed, optimism about their capacity and positive appraisals of business progress; they also scanned for tangible markers of success or reassuring signs that they were on a positive trajectory towards their future-oriented objectives (implicit or explicit). As indicated, entrepreneurs scanned across dynamic factors for tangible markers of success or reassuring signs of their trajectory. In all cases, appraisals became evident in connection with efforts to identify opportunities, resources, and actions to improve aspects of their businesses. Entrepreneurs with negative appraisals of external contexts frequently reported constraints and adversity outside of their ability to control, whereas positive appraisals related more to business opportunities or possibilities for business growth. Participants frequently reported external factors that either instigated or constrained entrepreneurial activities, along with further perceptions of whether these factors were preventing or enabling progress towards business objectives. This often required a step back to explore business practices, relationship and opportunities. After this step back, entrepreneurs reported greater recognition of both challenges and capacity for making progress (see Figure 85).

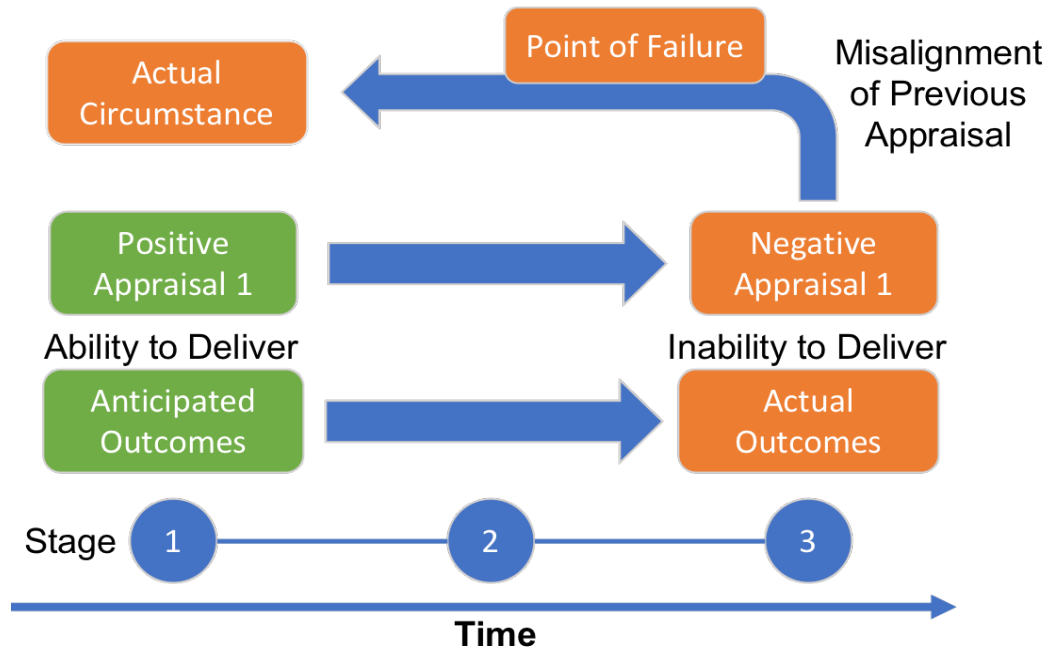


Figure 85. Appraisals of performance as time-lagged misalignment

Furthermore, within-case response patterns indicated tendencies for entrepreneurs to dismiss issues not perceived as a threat. In certain situations, appraisals from earlier stages became evident as misaligned with actual circumstances. As indicated, entrepreneurs would often maintain positive appraisals of performance and anticipated outcomes up to a point of failure; only after the point of failure did *misalignment* of the previous appraisal with actual circumstances become evident. For example, an inability to deliver on commitments to a client could be hidden from view at an earlier stage and then revealed at a later stage, thus indicating that earlier appraisals were inaccurate.

The following proposition may be derived:

Proposition 9: Configurations between entrepreneurs' coping responses and decisions converge as a *time-linear* sequence towards critical junctures (regardless of capacity or clarity for outcomes) contingent on alignment of appraisals with situational requirements.

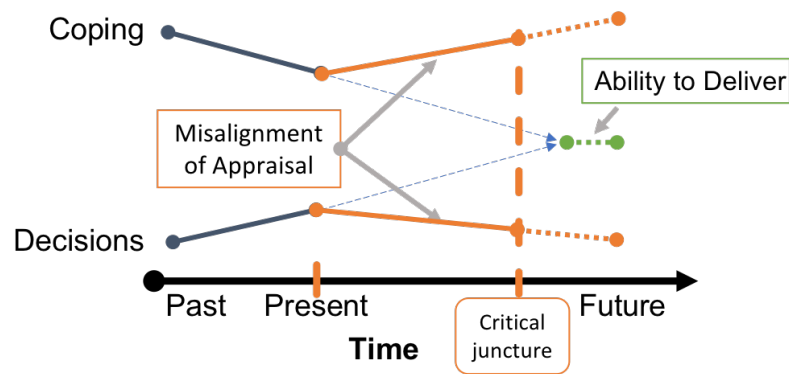


Figure 86. Visualisation of Proposition 9

In this research, entrepreneurs' circumspection was found to be useful in early stages, or in short durations, particularly when challenges were in fact beyond their experience or skills to address. This indicated that limitations in skill and ability had negative effects on actual and estimated performance, despite the existence of goals and strategies. That is, after recognising previous responses did not result in desired outcomes, entrepreneurs must reconfigure their responses to challenges based on situational requirements. These findings indicated that *misalignment* between performance appraisals and anticipated outcomes may become evident to entrepreneurs when positive perspectives are maintained up to a point of failure, such as an inability to deliver on commitments to a client. Regardless of entrepreneurs' capacity or clarity for outcomes, coping responses and decisions converged as a *time-linear* sequence towards critical junctures, whereby actual outcomes and ability to deliver emerged in relation to points of failure and actual circumstances.

Re-alignment of appraisals with external feedback

In this study, entrepreneurs consistently indicated perceptions of their business context as challenging, while maintaining favourable self-assessments of business progress. Indeed, such a bias or personal tendency became particularly evident with entrepreneurs unless they received feedback from external sources (friends, spouse, clients, etc) connected to perceivable and unfavourable effects on themselves or their business, either immediately or eventually. In this regard, external feedback for entrepreneurs about their business progress was crucial for re-aligning actions, resource commitment and opportunity assessments. More specifically, entrepreneurs with an absence of external feedback gravitated towards favourable perceptions and simply maintained business practices towards points of failure.

As a continuation from Proposition 9, the following propositions may be derived:

Proposition 10a: *Without sources of feedback, re-alignment of appraisals will be contingent on perceptions of negative effects.*

Proposition 10b: *Without negative effects, re-alignment of appraisals will be contingent on sources of feedback.*

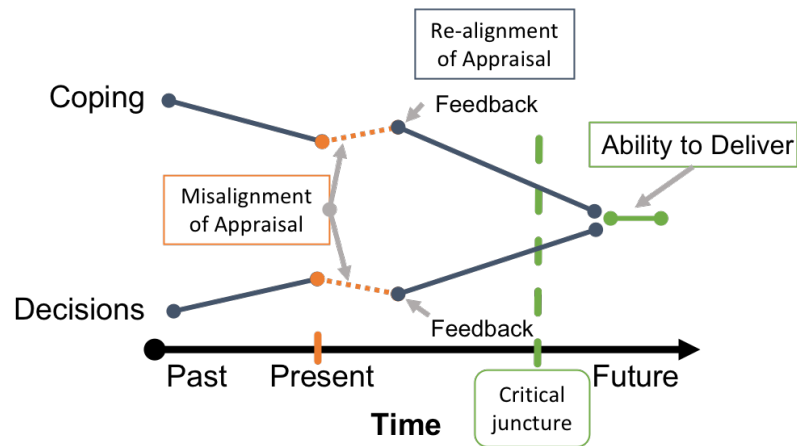


Figure 87. Visualisation of Proposition 10

In the absence of feedback, entrepreneurs were left with their own subjective evaluations of their progress. While the wrong response to a specific challenge might result in undesirable consequences, feedback and validation from social support emerged as a resource for entrepreneurs to help them handle uncertain and challenging contexts. After receiving feedback, favourable or unfavourable, entrepreneurs with initially optimistic views of their businesses continued more evidently to express positive perceptions of their business progress and outlooks for business growth. However, efforts to change appraisals, coping responses and decisions only occurred after experiencing negative effects.

11.2.4 Entrepreneurial capacity with different types of adversity

Finally, this dissertation has explored entrepreneurs' capacity to respond effectively to adversity in their businesses and produce desired results. The following sub-question was posed to emphasise the role of entrepreneurs' capacity to overcome different types of adversity in their businesses:

“How do entrepreneurs' coping and decision-making practices affect their capacity to overcome one-time, intermittent and persistent sources of adversity?”

This research made use of a longitudinal research design in order to gain a temporally valid understanding of entrepreneurial trajectories during data collection periods. By drawing on repeated measures, the longitudinal structure focused on capturing and exploring temporal stability and fluctuations based on entrepreneurs' subjective appraisals, reported adversity, explanations and eventual outcomes in their businesses.

Embedded & persistent sources of entrepreneurial tension

This study has explored and built on understanding how entrepreneurs responded to novel and persistent situations, challenges and setbacks. As an emergent finding, entrepreneurs reported certain persistent challenges that were most often connected to high-level priorities. Building from this, it was evident that these persistent challenges situations did *not* necessarily occur to entrepreneurs as setbacks, nor did stress experiences in these tensions necessarily a result in adversity, such as addressing business demands. Rather, sources of persistent tension were often perceived by entrepreneurs in relation to their business goals, such as improved performance or business growth and desire for personal well-being or fulfilment. In this regard, more nuanced and persistent tensions became evident in this study between high-level priorities for entrepreneurs' time and attention.

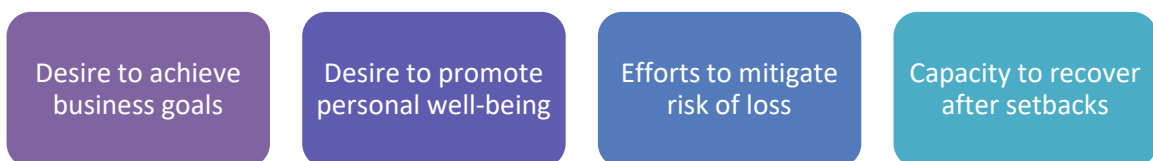


Figure 88. High-level priorities as persistent sources of tension

Entrepreneurial tensions were apparent for all participating entrepreneurs as balance these high-level priorities often corresponded with decision-making and coping strategies. For example, entrepreneurs may feel excited and engaged in new projects, but these feelings needed to be balanced with practical activities, such as staying within available financial, social and psychological capabilities, skills or abilities. Efforts by entrepreneurs to keep these high- and low-level tensions balanced corresponded with continuity in decision-making and coping strategies. Thus, continuity over multiple stages was best encapsulated in a seeming contradiction between entrepreneurs' optimistic attitudes towards business progress, despite also acknowledging inherent risks, experiences of stress or feelings of uncertainty.

These findings are further connected between entrepreneurs' prior experiences, coping responses and decision biases, such as the longevity or persistence of particular challenges and the extent to which problems were simply embedded in their work context. For example, all entrepreneurs in this study reported persistent struggles to achieve a sense of financial stability. As such, challenges reported were frequently regarding their attention to prevent business revenue shortfalls or evaluate the financial solvency of their endeavours. This was evident for entrepreneurs regardless of time in their businesses, indicating that financial solvency as a persistent tension was more than an issue of elapsed time. Rather, entrepreneurs' satisfaction with their financial positions did change as circumstances were progressively elaborated over time. Furthermore, the extent to which entrepreneurs reported satisfaction was specific to personal well-being, business goals and desire to mitigate risk, rather than objectively rational monetary values or calculations for financial worth.

Contextualising latent effects of learning

For entrepreneurs in this study, the impetus for starting a business was not about a desire to engage in economic activity. Rather, desire for growth was reported about engaging with a *future* capability they wanted to bring alive in themselves. They each expressed willingness to continue engaging in entrepreneurial activity while taking personal risks far past a point of comfort, even when struggling financially, and even after making errors in judgement. For entrepreneurs in this study, entrepreneurship was more about bringing a part of themselves into reality through their business. Changes in entrepreneurs' perceptions of capability or feeling equipped to manage

their business tended to co-occur with changes in their sense of control in their businesses. Reflecting on their journeys, entrepreneurs often acknowledged that business progress had been made but they suggested that changes in their businesses were not what they expected.

Along the way, entrepreneurs' ongoing efforts to cope with challenges and decision conflicts contributed to incremental changes that were not easily perceived while engaged in their businesses. From a longitudinal perspective, prior learning and development were crucial for entrepreneurs' ability to use internal resources to meet repeated or routine external constraints and achieve reliable outcomes. This orientation to growth required them to step outside their comfort zones and move beyond what felt familiar. Thus, a consequence of this desire to grow, entrepreneurs needed to make decisions on how to proceed with novel ideas, plans or approaches. In so doing, entrepreneurs began searching for possible improvements, then as a subsequent consequence, began encountering unfamiliar practices; at this point, gaining an awareness of further entrepreneurial capacity was necessary to develop their business. Therefore, understanding of personal limits served a practical purpose in helping entrepreneurs to manage and control their business more effectively.

The following proposition may be derived:

Proposition 11: Development in entrepreneurs' coping and decision practices will occur as a convergence of latent effects of learning that become hierarchically integrated over time.

Entrepreneurs in this study were at various stages in starting or running their businesses. Although entrepreneurs recognised that running their business required their attention in the short-term to create a solid foundation, each participant also looked forward and considered the longevity of their businesses. Indeed, for all participants, a prominent concern was how to build a business that would be sustainable beyond their short-term goals. Therefore, challenges that entrepreneurs faced became evident as they lay the groundwork to sustain their endeavour, while balancing priorities for the short and long-term. This longitudinal perspective points to dimensions of uncertainty that may become evident in light of emerging growth, such as when the entrepreneur is actively engaged in setbacks or must assess their ability to meet business demands.

Moving beyond personal limitations & control beliefs

Entrepreneurs indicated an intention and desire to develop entrepreneurial capacity. They also indicated their tendency to look at the big picture, learn from mistakes and gain more business control over time. Entrepreneurs' capacity to gain control over their businesses appeared connected with their capacity to identify, resolve or otherwise compensate for personal 'weaknesses' that were crucially tied to preventing business progress. Indeed, entrepreneurs clarified their perceptions of business control differently after acknowledging personal limits. In this regard, entrepreneurs' self-assessments were strongly connected to recognition for whether they had capacity to meet demands in their ventures.

From this, the following proposition may be derived:

Proposition 12: Recognition for capacity to meet demands will be contingent on entrepreneurs' perceptions of personal and business limits.

During the data collection period, entrepreneurs' beliefs about business control had evidently greater alignment with their actual capability when their previous exposure to business skills was matched with challenges they understood. Furthermore, with greater familiarity and comfort in performing business-related tasks also displayed greater control over their business. For example, entrepreneurs' prior business experience and roles with exposure to business activities similar to those needed in their current venture. In this regard, control beliefs were more aligned with entrepreneurs' actual control when this exposure related to business adversity.

The following proposition may be derived:

Proposition 13: Capability for business control will be contingent on prior exposure or experience performing business activities with proximal alignment to challenges faced.

Conversely, those perceiving control but no comfort with business skills tended to have less actual control over their business during the study. Entrepreneurs' longstanding concerns became evident over time and with repeated measures, particularly in situations when challenges were complex and required an extended amount of time to resolve. After recognising they were facing repeated or persistent

challenges in their business, entrepreneurs who initially held optimistic views started expressing concerns about past mistakes, confidence or skills they might need to learn. When entrepreneurs reported concerns about specific types of setback (i.e., financial losses) connections were more reliable between ongoing efforts and capability gain control and overcome these setbacks (i.e., improving infrastructure to support sales).

11.3 Contribution to literature

The previous section has presented a summary of findings in relation to this dissertation's research questions. These findings have been composed of a conceptual framework that integrates performance dynamics, developmental trajectories and processual nature of entrepreneurial capacity. In particular, this dissertation provides empirical support for a novel understanding of entrepreneurial resilience as it operates through decision-making and coping strategies. This section presents theoretical, methodological and practical contributions to extant literature and further implications for future research.

11.3.1 Theoretical contributions

Entrepreneurial trajectories & process theory

This study contributes to strengthening perspectives on development trajectories (e.g., McMullen & Dimov, 2013) and harmonising the calls from within the literature for inquiry into entrepreneurial processes (Shaver & Scott, 1991; Minniti & Bygrave, 2001; Moraz & Hindle, 2013; Hayton et al., 2013; McMullen & Dimov, 2013; Baron, 2014). Bygrave (2006) contends that selected research methods should be appropriate for the nature of the entrepreneurial activities under study. Drawing upon a longitudinal design (Kozlowski, 2009; Roe, 2014), this research contributes to entrepreneurship theory by capturing and exploring temporal fluctuations and changes (Bolger & Laurenceau, 2013) in developmental trajectories and processual nature of entrepreneurial resilience as it operates through decision-making and coping strategies. Moroz and Hindle (2012, p. 791) have highlighted the limits of a static approach. A theoretical implication was that an entrepreneur's acquisition and

exploitation of knowledge, experiences and resources cannot necessarily be decontextualised from the journey itself. Indeed, embracing this trend in the entrepreneurship field requires that process is a ‘fundamental object of enquiry’ (McMullen & Dimov, 2013, p. 1505). The theoretical importance of obtaining a micro-analytic picture of what occurs in an entrepreneurial journey has brought to the surface methodological challenges addressed by this dissertation.

Process-driven explanations (Sminia, 2011; Van de Ven & Sminia, 2012) ensure entrepreneurship is informed by a distinctly temporal view. Indeed, the longitudinal data from this dissertation contributes an exploration of causal order in entrepreneurial processes (Kessler & Frank, 2009). The provided rationale for the benefit of a methodology that uses process research is that aspects of social reality are processual rather than correlative. Van de Ven and Poole (1995) introduce theories of process and change (e.g., life cycle, teleology, dialectics and evolution) that represent different sequences of change events, which are in turn driven by different conceptual motors. Conceptually, dialectic process has been explored through collecting information on challenges and conflicts as a central focus to explicating how continuity and change is achieved during venture creation. This dissertation explored fundamental links between individual entrepreneurs and coping strategies used to overcome dilemmas, along with various temporal and contextual factors pertaining to entrepreneurial performance (Frese & Gielnik, 2014; Mischel, 1968; Hitt et al., 2007; Hmieleski & Baron, 2009; Baron, 2013). Entrepreneurial processes were indicated within and between challenging situations as generalisable patterns emerged, social mechanisms also emerged in which conceptual motors operate (Van de Ven & Sminia, 2012).

This dissertation holds that the nature of entrepreneurship is a developmental process whereby entrepreneurs must apply knowledge, skills and techniques to cope with competing demands during venture creation. Following this logic, a continuous, forward-looking perspective defines the methodological approach in the present study, has in itself been a novel contribution to entrepreneurship. The longitudinal data collection structure enabled capture and exploration of temporal fluctuations (Bolger & Laurenceau, 2013) in entrepreneurs’ self-observations, personal experiences, and sense-making regarding personal and business challenges. The research employed a longitudinal research design in order to gain an accurate understanding of stability and change for entrepreneurs during the data collection period.

Construct of entrepreneurial resilience

This study has demonstrated value for this consolidation by focusing on a key aspect of entrepreneurial capacity to overcome, adapt or recover from adversity (e.g., Gartner, 1990; Frese & Gielnik, 2014). The importance of this contribution connects to the centralised focus for the domain of entrepreneurship (Bruyat & Julien, 2001), as scholars generally agree that ‘creation’ (of ventures and organisations, goods and services) is the unifying purpose and the fundamental characteristic of research for the field (Vesper, 1982; Low, 2001; Brush et al, 2003). Entrepreneurship scholars have known strikingly little about how this journey unfolds within an individual entrepreneur over time and the dynamics of performance as they occur (Frese & Gielnik, 2014). Addressing the research questions posed for the present study required placing the entrepreneur’s views, actions and business practices at the centre of the research. This examination of development over time was important for revealing the theoretical mechanisms underlying observed changes in entrepreneurs’ perspectives.

This study contributes insights into how and why entrepreneurs adjusted, modified or adapted their resources and practices to improve business outcomes. This dissertation explored how performance factors unfolded for individual entrepreneurs by focusing on such specific situations, challenges or dilemmas that entrepreneurs faced in their business (Deakins & Freel, 1998). These factors were found in this study to be temporally dynamic and thereby progressively elaborated for entrepreneurs in their work context as *time-linear*, *multi-dimensional*, and *complex*. This study has further revealed integrated hierarchies that include embedded and persistent tensions between high-level priorities for time and attention, systemic patterns of entrepreneurial activity and decision-making conflicts that result from split focus between multiple commitments and business demands. Indeed, this research finds that entrepreneurs encounter decision-making conflicts around *unique* and *complex* sources of adversity that require development of latent capacity. Furthermore, entrepreneurs’ efforts to resolve persistent challenges depend on reference to their future-oriented goals or objectives and recognition of effective responses and capacity to meet both business-related and personal demands.

Fundamentally, discourse around entrepreneurial failure and learning has been crucial to further conceptual development of entrepreneurial resilience. By providing

a fundamental inclusion of process theory rationale (e.g., Van de Ven, 1992; Sminia, 2011; Van de Ven & Sminia, 2012), this study holds theoretical implications for understanding business and personal changes and transformations that result in entrepreneurial resilience. Thus, the conceptualisation of entrepreneurial resilience as a multidimensional phenomenon (Cicchetti & Garnezy, 1993; Goldstein, 2008) has required extensive engagement in this study with processual and developmental perspectives. Indeed, apparent gaps within the entrepreneurship literature indicated that the build-up to failure was not clarified or well-understood (e.g., Cope, 2011). For this reason, this research focused on development of methods capable of visualising pathways to the build-up to entrepreneurial failure, which may best be understood as a cumulative series of situationally inappropriate decisions and coping responses that aggregate towards unfavourable outcomes relative to entrepreneurs' future-oriented objectives. This study has found that sources of entrepreneurial adversity that are not perceived by entrepreneurs as immediate threats will either be dismissed or temporarily ignored, dependent on an awareness of effective responses and coping resources.

Discourse around entrepreneurs' capacity to respond effectively to external adversity has broader implications for how coping processes connect with effort to balance emotional needs and the practical challenges of running a successful business (Drnovsek, Örtqvist & Wincent, 2010). Prior research has advocated for a perspective that resilience does not protect the individual from negative life events, but resilient individuals seem to cope more functionally and flexible with stress (Friborg et al., 2003). This brings attention to vulnerability factors that may leave an entrepreneur open to the deleterious effects of intrapersonal and environmental stressors (i.e., prompting events). Findings in this study have indicated that coping strategies and intensified efforts are likely to be moderated by entrepreneurs' perception of constraints and negative effects. However, the effectiveness of coping responses to reduce negative impacts on performance were found to depend on coping resources and accurate appraisals.

This dissertation reveals a more nuanced process-oriented perspective, such that problem-focused coping should be considered part of an overall sequence of coping responses that converge at critical junctures, including *affective regulation*, *logical analysis* and *direct action*. Identification of problems was necessary for entrepreneurs to confront the challenge and deal directly with sources of stress (Shapero, 1975; Shane

et al., 2003). This provides reference to Lazarus (1975) in which direct actions are connected to strategies and attempts to solve problems or gain control of a situation. In this study, coping strategies directed towards the regulation of emotional reactions (palliative), reflecting the conceptualisation of regulatory efforts (Higgins, 1998; Brockner, Higgins & Low, 2004), were most often used when problems were too complex, unclear and therefore direct actions were not possible. Entrepreneurs who struggled with regulatory efforts when problems were unclear found the stress increasing over time. This study finds that maintaining optimism and persistence will depend on entrepreneurs' perception of stressors and impacts on business progress.

The theoretical basis behind early stress literature posited theoretical notions of "eustress" (Selye, 1974) as 'the pleasant stress of fulfilment'. The theoretical basis behind stress research provides support for adaptive responses and positive outcomes (Selye, 1974; Wong, 2006; Feder et al., 2009). This corresponds with the current theory behind resilience as an adaptive stress response, and thereby indicates resilience as a higher-order theoretical construct. Conceptual congruence with requisite variety (Ashby, 1962) is supported with a wider range of coping strategies, resources and responses should connect positively to qualities of adaptiveness or resourcefulness. This narrative is central to the way in which entrepreneurs navigate challenges, setbacks and uncertainty in the creation and development of their ventures. This study finds that entrepreneurs' capability for business control will be contingent on perceptions of personal and business limits, as well as prior exposure or experience performing business activities with proximal alignment to challenges faced.

Extant literature from entrepreneurship has offered a basis for this argumentation, but the dearth of a coherent construct and limited empirical evidence have severely constrained prior progress (e.g., Lee & Wang, 2017). Apart from confirming inherent complexity in this construct, theoretical contributions for literature from this study are derived from confirmation that entrepreneurial resilience will *not* be directly observable or measurable without also understand the direction and momentum of observable changes. While theoretical implications from this study are that unique features of entrepreneurial resilience will reside outside the realm of objective inquiry, implications also remain that the realm of subjective experience will be fruitful for further research. Therefore, theoretical implications from this study emphasise entrepreneurial capacity through the intertwining of decision-making and

coping strategies as enabling adaptive performance and recovery from adversity during venture creation. The successful application of this resilience framework towards entrepreneurship research requires acknowledgement and a working knowledge of how these underlying theories interconnect.

These theoretical contributions set the stage for further research into entrepreneurial phenomena and trajectory-based perspectives that are time-linear or multi-phase, complex and multidimensional, as well as future contributions in entrepreneurship theories that specify entrepreneurial orientations, personal characteristics and performance dynamics.

11.3.2 Methodological contribution

This study contributes by extending the lens in entrepreneurship theory and practice from historically outcome-driven explanations to longitudinal approaches that more adequately include processual and temporal dimensions and illuminate emerging entrepreneurial phenomena. The implications from this dissertation are substantial for theoretical and methodological explanations for systematic effects of time that will be relevant to further inquiries in short-term longitudinal research. This dissertation has focused on putting into methodological practice the epistemological implications of defining entrepreneurial decision-making and coping strategies as an intertwined developmental process. At the same time, using this definition has entailed designing research methods capable of following emerging temporal experiences for individual entrepreneurs. The research employed a longitudinal research design gain an accurate understanding of stability and change for entrepreneurs during the data collection period. This dissertation has expanded from wider recognition and appreciation within entrepreneurship discourse that methodological toolkits have been necessary to discern pre-conditions for intra-individual variation.

Idiographic longitudinal research designs

The present research contributes to addressing one of the most common methodological limitations in the existing entrepreneurial literature. These limitations stem from the prominence of cross-sectional research approaches (Chandler & Lyan,

2001; Perren & Ram, 2004) in entrepreneurship. This reliance on cross-sectional evidence has inherent implications for prior research, including that exploration of process-based phenomena has been insufficient (Low & MacMillan, 1988; Sminia, 2009; Moroz & Hindle, 2012; Schmitz et al., 2012). Alternatively, the dissertation’s longitudinal research design (Kozlowski, 2009; Roe, 2014) aimed to gain an accurate understanding of stability and change for entrepreneurs during the data collection period. In many respects, this dissertation has focused on resolving epistemological implications of defining entrepreneurship as a developmental process.

This longitudinal and process-orientation data contributes for further exploration of causal order in entrepreneurial processes (Kessler & Frank, 2009). Indeed, there many important theoretical implications for separating whether personal characteristics of entrepreneurs are a predisposing factor or are learned from their experiences (Hisrich et al., 2007). However, achieving further advances in theoretical explanations will benefit from using time-linear distinctions (e.g., McMullen & Dimov, 2013) to arrange entrepreneurial phenomena according to when formations are reported or observed. In this study, the question of process direction was derived from consideration of how entrepreneurs resolve or recover challenges and for delineating chain structures (Figure 89).

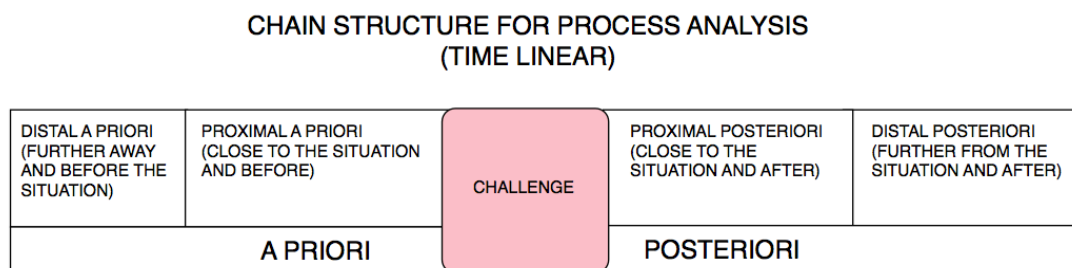


Figure 89. Chain structure for process theory (Time-linear)

These distinctions may be further delineated from entrepreneurs’ points of view about relevant factors before, during and after confronting challenging conditions. This is indicative of the term ‘time perspectives’ adopted by Lewin (1952), which he clarified as an individual’s view of their psychological future and past, as it exists at a given time. For example, using a time-linear chain structure for process analysis, *Distal* formations should be expected to occur further away from challenges, while *proximal* formations occur closer. This has a number of implications for both theory and methodology:

(1) Personal factors characterised as *Distal* may include education, intelligence and beliefs as embedded in entrepreneurs' generalised expectations about relationships or how things work in the world. Researchers may be more capable of identifying these *Distal* factors because they may be conceptually overlapped with “traits”, regarded as “durable”, “stable” or “background” in psychological terms or “time-invariant” in methodological terms. For example, effects of accumulations of experiences should provide better explanations for entrepreneurs' actions by broadening the total composition of sampling, thereby showing evidence of variation as dependent on either situational context (proximal factors) or background knowledge (distal factors) after challenges become evident.

(2) *Proximal* formations will include entrepreneurs' effort to learn new business skills either in anticipation for challenges before an occurrence (*a priori*) or after recognising of situational requirements for resolving the challenge just experienced (*posteriori*). Researchers may be more capable of identifying *proximal* factors as “time-varying” attributes, “unstable” or situation-dependent (Mischel, 1968)—as indicated by findings in this research, these factors will most likely appear highly interconnected with entrepreneurs' perceptions and appraisals of challenging external contexts and business uncertainty. Indeed, such distinctions allow for more possibility to clarifying pathways from sources of adversity to formative effects on learning and development.

(3) In the interest of pointing future researchers towards the direction of longitudinal studies, in which the goal is to examine change and continuity over time, it is important to consider theoretical mechanisms that may underlie observable effects (Van de Ven, 1992; Van de Ven & Sminia, 2012). Future researchers should feel encouraged to explore longitudinal dimensions of entrepreneurial resilience using process theory. In this regard, investigating complex entrepreneurial phenomena should recognise these inherent characteristics:

1. lagged effects (e.g., yesterday's stress predicting today's job satisfaction)
2. spill over from one context to another (e.g., work to family)
3. effects of accumulations of experiences (e.g., increasing stress)
4. effects of change in one variable on change in another (e.g., feeling more capable changes perception of business control)



With regard to the propositions and findings in this study, future researchers are encouraged to explore other longitudinal dimensions of entrepreneurial resilience, such as the changing role of social support and feedback for mediating the impact of work-related stress, prior experiences and exposure to business-related skills compared to rates of learning, or emotional regulation in moderating effects from high stress situations, particularly when sources of stress and pressure are not easily ascertainable by entrepreneurs.

Within-person dynamics & temporal experiences

This dissertation offers novel methodological contributions crucial to furthering progress in entrepreneurship inquiry of *emerging* within-person dynamics and temporal experiences for individual entrepreneurs. This research has become more capable of showing changes and transformations in life trajectories with multiple data collection points approaching contemporaneous, as events were still developing (Wagoner, 2009; Wagoner & Jensen, 2014). The longitudinal data collection enabled exploration of temporal structures that relate to emerging fluctuations (Bolger & Laurenceau, 2013) in entrepreneurs' self-observations, personal experiences, and sense-making regarding personal and business challenges. This has entailed designing research methods capable of following prospective and temporally valid understanding of entrepreneurial trajectories.

From within an inductive-orientation in this study, this dissertation developed novel classifications for more systematic analysis of quantitative time-series measures and visually representing changes in participant entrepreneurs' perceptions. Analysis of the quantitative data in this study was helpful for developing further understanding of idiographic patterns (Luthans & Davis, 1982) and representing shifts in entrepreneurs' journeys. Indeed, there was a noticeable benefit for developing insights from qualitatively analysing dynamic, idiographic response patterns in the diary study data. Dynamic response patterns were thusly identified and sorted according to a bifold classification of observable variation in entrepreneurs' appraisals (Table 66):

Table 66. Bifold Classification of Observable Variations in Response Patterns

Variation	Classification	Description
None/Minor	Stable	
High	Unstable	
		
		Dynamic patterns classified as Unstable were due to frequent and visible divergences and low overall continuity in valence and greater co-occurrence between challenges faced and evident divergences.

Theoretical and methodological implications arise from recognition extant literature that entrepreneur’s perspectives, interpretations and experiences of events may change depending on time and context (Bogdan & Taylor, 1975; Denzin & Lincoln, 1994). Indeed, Hoffman (2015) contends that variables measured over time are really two variables instead of one. Certain personal attributes that appear susceptible to systematic changes will likely indicate structures that keep them relatively unstable. Thus, when personal attributes such as stress, worry and control are expected to change over-time, then it may be more worthwhile to examine the same person on multiple occasions. Otherwise, when such attributes are assessed at only a single point in time, values obtained at that particular occasion cannot be assumed to be stable and reflective of the person or business as a whole.

McMullen and Dimov (2013) argue that "a process approach to entrepreneurship research may reveal predictable patterns and events that variance-oriented studies would otherwise miss" (p. 1507). For example, process approaches will favour relationships between variable as containing imbedded information about particular events. This juxtaposition between variance and process approaches shows the process approach as a method primarily concerned with capturing temporality of variables as they change from event to the next.

Findings in this study show traditional variance approaches to quantitative metrics may be insufficient with trajectory-based entrepreneurial phenomena. However, longitudinal models that integrate dynamic response patterns and statistical testing may benefit from within-person alignments and each entrepreneurs’ unique

business trajectories. Therefore, future longitudinal research allowing larger sample sizes and a greater quantity of observations using multiple stages of data collection should consider statistical testing using repeated measures analysis of variance (RM-ANOVA) and mixed effects models (MEM). While longitudinal studies are more difficult and expensive than cross-sectional studies, given that following entrepreneurs over time can be both expensive and time consuming, using process-based approaches have clear methodological implications for entrepreneurship research. The theoretical value of process research appears to be the unique way in which relationships between variables become discovered, evaluated and modelled, which may largely extend the classic variance-based archetype of theory development.

In this dissertation, process research begins to question the mechanisms that connect variables, while also clarifying the sense making of how individuals or collectives understand an event. Ultimately, this dissertation supports application of process theory as integral to understanding entrepreneurial development, given that perspectives may remain consistent or lack consistency with regard to different levels of change and stability based on differing controversies, practices and social mechanisms that are uniquely inherent in entrepreneurship. Indeed, temporal dynamics of entrepreneurial development at both individual and business levels by extending process theory in this dissertation towards uncovering latent effects and contextualised explanations of events as they occur.

11.3.3 Practical contributions

Developing educational resources

In this dissertation, entrepreneurial resilience emerged in the application of knowledge, skills and techniques to cope with competing business demands. For entrepreneurs in this study, motivations were more than just starting a business or engaging in economic activity; rather, it was about engaging with a *future* capability they wanted to bring alive in themselves. For example, patterns emerged in the present study as entrepreneurs faced specific business challenges related to business activities. Their willingness to continue engaging in entrepreneurial activities while taking

personal risks far past a point of comfort, even when struggling financially, and even after making errors in judgement, was about bringing this part of themselves into reality through their business. Furthermore, personal limits served most often as a practical recognition that helped entrepreneurs in their efforts to manage and control their business activities more effectively. Fundamentally, it was insufficient for entrepreneurs to understand problems without also understanding what could be done differently.

Teaching and training for entrepreneurs and researchers should focus on strengthening decision and coping skills through exposure to solutions analysis and further techniques for cognitive modification and emotional-stimulus control. Training programmes should also include modules on emotional and shame resilience, as both are intricately connected with experiencing setbacks, failures and losses. As a fundamental component of entrepreneurial resilience identified in this research, such educational resources and professional guidance are needed to help nascent entrepreneurs more appropriately identify available resources and responses they will need once engaged in their ventures. Providing training to entrepreneurs about stress management and coping may help their identification of available responses.

Modelling rest, recovery & reflective practice

It is important that entrepreneurs and entrepreneurship students are provided with models that include rest, recovery, and balancing work-life as essential components of business journeys. As with prior research in health psychology (e.g., Jennings & McDougald, 2007; Grzywacz & Marks, 2000; Grzywacz et al., 2007), the present study finds evidence that failing to rest for prolonged periods has a deleterious effect on entrepreneurs' performance, personally and professionally. In this regard, entrepreneurs need to be intentional about cultivating sleep and rest, shutting off email at appropriate times and focusing on their families. For example, this would include *not* expressing approval of entrepreneurs who work their holidays; rather, scholars and educators would commend those who take proper time to enjoy their friends and family. Entrepreneurship scholars and educators must communicate the importance of letting go of exhaustion and stress as a status symbols or measures of self-worth.

Reflective practice is a process of self-reflecting on work to better understand one's learning and development. Regularly inputting self-reflective entries to a log of learning is known as "reflective journaling" and is one of the most basic and powerful methods of facilitating professional development (Mann, Gordon, & MacLeod, 2009). In this study, diary entries were an effective way to monitor and understand the day-to-day challenges facing entrepreneurs in their businesses. Until now, the main obstacle to using this type of process to gain insight into the entrepreneurial and personal challenges faced by entrepreneurs is that it is logistically difficult to implement. Consequently, most studies involving entrepreneurs have been conducted with simpler, but less effective, retrospective surveys or once-off cross-sectional interviews. These methods are particularly poor at tracking attrition rates and identifying contributing factors for success and failure.

Building and maintaining social support

Social capital (Jack, Drakopoulou-Dodd & Anderson, 2004) is widely recognised but entrepreneurship research and education might further clarify the role of social exchanges for entrepreneurs as they develop business practices and coping strategies. Practical implications of social support are found in the variability and range of benefits that change over time. For example, stress emerged for entrepreneurs not necessarily in moments of uncertainty, but when pressure was too much to handle alone. Availability of support was a prerequisite for resilience in most circumstances. Additionally, for entrepreneurs who do not feel capable, social support may be a "just in time" factor; whereas, entrepreneurs who already feel capable may receive little boost performance.

Further practical implications from this study show longitudinal perspectives. First, the necessity of social exchange is not steady over time. Since nascent entrepreneurs may struggle initially to realise their own orientations, successfully navigating challenges may depend on social relationships outside of their business to realise necessary responses. Second, responses to a specific challenge may initially result in undesirable consequences, but feedback and validation from social support emerged in this study as a primary way for entrepreneurs to cope with dimensions of uncertainty. In some cases, support was around emotions, decision-making and thought processes or appraisals, and therefore promoted entrepreneurs' ability to return

to peak performance after encountering setbacks. Finally, social support may play a crucial role as nascent entrepreneurs develop orientations to their businesses and other forms of capital. Thus, social support and its benefits are highly variable over time.

11.4.4 Showing value for future research

Considering further inquiry, this dissertation contributes an explanation of entrepreneurial resilience by establishing an empirically validated model of time-linear sequences. This dissertation further supports the application of process theory (Van de Ven, 1992; Van de Ven & Sminia, 2012) when developing improvements to this model of entrepreneurial resilience. Such an effort by future researchers may be helped by keeping entrepreneurial events in alignment between appraisals, responses and subsequent outcomes. Indeed, this dissertation, findings support a theoretical conceptualisation of entrepreneurial resilience as a favourable business outcome that follows adaptive coping responses to the effects of stress. Future researchers are encouraged to explore other process-oriented and longitudinal dimensions of entrepreneurial resilience, such as changes in the role of social support, prior experience to adversity compared to rates of learning and emotional regulation as a moderator of stress effects.

This dissertation contributes substantially through development of analytical techniques to build multiple longitudinal case studies (see Stake, 2006; Davidsson, 2005; Yin, 2003) that sets the stage for further research. Moroz and Hindle (2012, p. 791) have highlighted the limits of a static approach, which characterises the venture creation process as a set of variables connected by speculative links, without investigating sequences of activities prospectively. Establishing analytic protocols for linking between recent entrepreneurial events to appraisals, decisions, and outcomes was a crucial contribution to process-based methodology. For this reason, chain analysis technique is identified as holding promise for future scholarly inquiry in entrepreneurship. This dissertation recommends further pedagogical and practical maturation of these analysis techniques by embracing longitudinal research designs. Furthermore, by continuing use of intensive longitudinal methodologies, there is a genuine possibility and potential for development of real-time interventions, such as problem-solution matching, through participatory and action research approaches.

Theoretical and methodological implications for further research means that entrepreneurial resilience should, at minimum, be researched as a latent dependent or time-lagged outcome variable. These time-linear classifications may assist further research efforts in positioning cross-situational changes in relation to significant events, including self-reported challenges, effects from stress, and business setbacks. Further research in entrepreneurship that extends from this dissertation will be well-served to prioritise idiographic, longitudinal research and chain analysis techniques to explore these complex sets of inter-relations between entrepreneurs, business situations and perceptions of wider context and challenges facing them in their linked personal and professional identities. From this point, there may yet be conceptual integrity to the notion and value of entrepreneurial resilience.

11.4 Limitations

Because the entrepreneurship scholarship community have been largely unfamiliar with this class of longitudinal data, it may be helpful to focus on opportunities and limitations associated with study design and analyses. Indeed, despite using techniques to assure the quality of the analysis, there are a number of limitations inherent in the study design. Indeed, as with all dissertations, there are a number of overall limitations that will be discussed for further consideration. Three main limitations are highlighted in this sub-section.

First, more data, larger sample size or greater quantity of responses would have been helpful in understanding the nature of evident patterns for this study. While smaller sample sizes are acceptable in qualitative research, this design also included a quantitative component during the diary study. The available set of data, while substantial compared to other similar methods is still a major limitation for longitudinal case studies, which may have restricted connections across cases and between entrepreneurs in this research. A more fundamental limitation though, is that only changes in their business were sampled during the data collection period, whereby personal experiences and earlier actions or pre-conditions analysed herein were primarily collected with interview methods. This leaves personal experiences from the data collection window less well-addressed, potentially compromising the transferability of this study's findings when compared to similar future inquiry with larger windows of observation or sampling frames. Therefore, while it is unclear

precisely how the present quantitative findings would generalise to larger samples, the available evidence suggests that similar data collection approaches will likely be generalisable with a similar sample but not to wider samples, such as pre-entrepreneurial, mixed gender, or those originally from non-western cultures.

The second major limitation of the present study is that it does not provide empirical evidence about female entrepreneurs. Previous studies examining stress and pressures unique to women includes sexual discrimination and prejudice, lack of role models and mentors, feelings of isolation, and dual expectations of family responsibilities (Cooper & Davidson, 1987). For example, more deliberate invitations may have significantly enhanced sampling with women entrepreneurs, perhaps by raising awareness of particular life issues often seen as more relevant to domestic responsibilities, such as caring for children or other family members, that may result in inequitable sharing of available resources or time they can devote to their businesses. This may indicate necessary strategies to supplement recruitment communication and compensate for recruitment gaps with female participants that have not been well-articulated or evident in entrepreneurship literature prior to this dissertation. Thus, better articulating these considerations will be important for recruitment efforts in future research. At no point have any claims about female entrepreneurs been made based on the present findings.

Finally, the use of questionnaires with diary methods has relied on entrepreneurs providing self-report data about their experiences. The specific approach to diary methods in this study involved questionnaires using a twice-weekly reporting interval. However, reporting on occasions were provided up to ten days after the last account, which was less than optimal scenarios that could have affected the accuracy of an entrepreneur's self-reported accounts. That is, there may have been gaps between what participants would have reported contemporaneously versus what they later reported in the diary entry and therefore could be considered a limitation. Nevertheless, this approach provided a continuous picture of intermediary changes for entrepreneurs by reporting current experiences (e.g., Schwartz et al., 1999), thus not requiring accounts during the diary study of past events further than ten days. Regardless, the qualitative nature of this investigation could still be considered a limitation that might be addressed in future research. That is, interview questions that asked entrepreneurs to recall past events with prompting references to diary accounts may still be limited by

the constructive nature of human memory and therefore difficulty accurately recalling past events (e.g., Mitchell, Thompson, Peterson, & Cronk, 1997; Schwarz et al., 2009; Fredrickson, 2000). Further inquiry may benefit from collecting more qualitative data within diary accounts, such as requesting further reflection about feelings and personal experiences that relate to entrepreneurial trajectories.

11.5 Conclusion

This dissertation provides empirical support for an understanding of performance dynamics, developmental trajectories and processual nature of venture creation as it operates through decision-making and coping strategies. For this dissertation, a robust investigation through diary methods was crucial for revealing factors affecting entrepreneurial performance. This thesis also represents a significant step towards gaining a more complete understanding of entrepreneurial resilience as a favourable business outcome that follows an adaptive coping response to the phenomenological experience of adversities, setbacks or failures. However, findings show that subjective appraisals of capacity were often disconnected from entrepreneur's actual capacity to produce desired results. An implication is that improving the accuracy of capacity appraisals beyond trial and error may require external interventions with a longitudinal and process orientation. Whether entrepreneurial resilience is conceptualised as protective or regenerative, it is hopeful that the empirical evidence found in this dissertation will serve entrepreneurship scholars by establishing both an innovative and reliable starting point for future studies that seek to clarify entrepreneurship as a developmental process.

REFERENCES

REFERENCES

- Abelson, R.P. & Levi, A. (1985). Decision-Making and Decision Theory. *Journal of Business Venturing*, 13(12), 45-53.
- Affleck, G., Zautra, A., Tennen, H., & Armeli, S. (1999). Multilevel daily process designs for consulting and clinical psychology: a preface for the perplexed. *Journal of Consulting and Clinical Psychology*, 67(5), 746–754. <http://doi.org/10.1037/0022-006X.67.5.746>
- Alaszewski, A. (2006). *Using Diaries for Social Research*. London, England: Sage Publications.
- Aldrich, H.E. (1979). *Organisations and Environments*. Englewood Cliffs, NJ: Prentice-Hall.
- Aldrich, H. E. (1992). Methods in our madness? Trends in entrepreneurship research. *The state of the art of entrepreneurship*, 191, 213.
- Aldrich, H. E. (2012). The emergence of entrepreneurship as an academic field: A personal essay on institutional entrepreneurship. *Research Policy*. <http://doi.org/10.1016/j.respol.2012.03.013>
- Aldrich, H. E. & Martinez, A. (2001). Many are called, but few are chosen: An evolutionary perspective for the study of entrepreneurship. *Entrepreneurship Theory and Practice*, 25(4), 41–56.
- Aldrich, H. E & Wiedenmayer, G. (1993). From traits to rates: An ecological perspective on organizational foundings. In J. A. Katz & R. H. Brockhaus Sr. (Eds.), *Advances in entrepreneurship, firm emergence, and growth*, 45–195. Greenwich, CT: JAI Press.
- Allison, P.D. (2010). *Survival analysis using SAS: a practical guide*. SAS Institute, Cary, NC.
- Allport, G. W. (1985). *The historical background of social psychology*. New York: McGraw Hill.
- Alvarez, S. A., & Barney, J. (2005). Discovery and Creation: Implications for practice and policy. *Enterprise and Innovation Research Conference, Waikato Stadium*.
- Akande, A. (1994). Coping with entrepreneurial stress: evidence from Nigeria. *Journal of Small Business Management*, 32, 83–7.

References

- Amason, A. C., Shrader, R. C., & Tompson, G. H. (2006). Newness and novelty: Relating top management team characteristics to new venture performance. *Journal of Business Venturing*, 21, 125-148.
- Amsel, A. (1992a). Frustration theory: Many years later. *Psychological bulletin*, 112(3), 396.
- Amsel, A. (1992b). *Frustration theory: An analysis of dispositional learning and memory*, 11. Cambridge University Press.
- Ashby, W. R. (1962). *Principles of Self-organizations: Transaction*. Pergamon Press.
- Ayala Calvo & Manzano-Garcia (2010). Established Business Owners' Success: Influencing Factors. *Journal of Developmental Entrepreneurship*, 15(03), 263-286.
- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122.
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social & Clinical Psychology*, 4(3), 359-373.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44(9), 1175.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Macmillan.
- Bandura, A., & Jourden, F. J. (1991). Self-regulatory mechanisms governing the impact of social comparison on complex decision making. *Journal of Personality and Social Psychology*, 60(6), 941.
- Balogun, J. (2003). From blaming the middle to harnessing its potential: Creating change intermediaries. *British journal of management*, 14(1), 69-83.
- Baltes P. B., Nesselroade J. R. (1979). History and rationale of longitudinal research. In Nesselroade J. R., Baltes P. B. (Eds.), *Longitudinal research in the study of behavior and development*, 1-39. New York, NY: Academic Press.
- Barker, V. L. I. (2005). Traps in diagnosing organization failure *The Journal of Business Strategy*, 26(2), 44-47.
- Baron, R. A. (1998). Cognitive mechanisms in entrepreneurship: why and when entrepreneurs think differently than other people. *Journal of Business Venturing*, 13, 275-294.

References

- Baron, R. A. (2004). The cognitive perspective: a valuable tool for answering entrepreneurship's basic "why" questions. *Journal of business venturing*, 19(2), 221-239.
- Baron, R. A. (2006). Opportunity Recognition as Pattern Recognition: How Entrepreneurs "Connect the Dots" to Identify New Business Opportunities. *Academy of Management Perspectives*, 20(1), 104-119.
- Baron, R. A. (2007). Behavioral and cognitive factors in entrepreneurship: entrepreneurs as the active element in new venture creation. *Strategic Entrepreneurship Journal*, 1(1-2), 167–182. <http://doi.org/10.1002/sej.12>
- Baron, R. A. (2012). *Entrepreneurship: An Evidence-based Guide*. Edward Elgar Publishing.
- Baron, R. A. (2014). The Role of Affect in the Entrepreneurial Process. *Academy of Management Review*, 33(2), 328–340.
- Baron, R. A., Franklin, R. J., & Hmieleski, K. M. (2013). Why Entrepreneurs Often Experience Low, Not High, Levels of Stress: The Joint Effects of Selection and Psychological Capital. *Journal of Management*, 20(10), 1–27. <http://doi.org/10.1177/0149206313495411>
- Baum, J. R. (2004) Cognitions and behaviours of successful nascent entrepreneurs: A three-year panel study. Presented at the Academy of Management meeting, New Orleans, LA.
- Baum, J. R., Locke, E. A., & Smith, K.G. (2001). A multidimensional model of venture growth. *Academy of Management Journal*, 44(2), 292–303.
- Baum, J. R., & Locke, E. A. (2004). The Relationship of Entrepreneurial Traits, Skill, and Motivation to Subsequent Venture Growth. *Journal of Applied Psychology*, 89(4), 587–598
- Baum, J. R., Frese, M., Baron, R. A., & Katz, J. A (2013). Entrepreneurship as an Area of Psychology Study: An Introduction. Chapter 1, In *The Psychology of Entrepreneurship*.
- Barreto, H. (2013). *The entrepreneur in microeconomic theory: Disappearance and explanation*. Routledge.
- Barta, W. D., Tennen, H., & Litt, M. D. (2012). Measurement reactivity in diary research. In M. R. Mehl & T. S. Conner (Eds.), *Handbook of research methods for studying daily life* (pp. 108-123). New York, NY, US: The Guilford Press.
- Beal, D. J., & Weiss, H. M. (2003). Methods of ecological momentary assessment in organizational research. *Organizational Research Methods*, 6: 440-464.

References

- Beal, D. J., Weis, H. M., Barros, & Macdermid. (2005). An episodic process model of affective influences on performance, *Journal of Applied Psychology*, 90(6): 1054-1068.
- Beaver, G. (2003). Small business: success and failure. *Strategic Change*, 12(3), 115-122.
- Begley, T. M. & Boyd, D. P. (1987). Psychological characteristics of associated with performance in entrepreneurial firms and small businesses. *Journal of Business Venturing*, 2: 79-83.
- Bernard, M. & Dubard Barbosa, S. (2016). Resilience and entrepreneurship: A dynamic and biographical approach to the entrepreneurial act. *Management*, 19(2), 89-123. <https://www.cairn.info/revue-management-2016-2-page-89.htm>.
- Bennet, A., & Bennet, D. (2008). The Decision-Making Process for Complex Situations in a Complex Environment. In *Handbook on Decision Support Systems 1: Basic Themes*, Berlin: Springer-Verlag.
- Bhave, M.P. (1994). A process model of entrepreneurial venture creation. *Journal of Business Venturing*, 9 (3): 223-43.
- Bird, B. J. (1989). *Entrepreneurial behavior*. Scott Foresman & Company.
- Bird, B. & P. West (1997). Time and entrepreneurship. *Entrepreneurship Theory and Practice*, 22(2), 5–9.
- Branzei & Abdelnour (2010). Another day, another dollar: Enterprise resilience under terrorism in developing countries. *Journal of International Business Studies*, 41(5), 804-825.
- Brockner, J., Higgins, E. T., & Low, M. B. (2004). Regulatory focus theory and the entrepreneurial process. *Journal of Business Venturing*, 19(2), 203–220. doi:10.1016/S0883-9026(03)00007-7.
- Brundin, E. (2002). *Emotions in Motion. Leadership during Radical Change*. Doctoral dissertation, Jönköping International Business School.
- Brundin, E. (2006). Catching it as it happens. In H. Neergard & J. Parm Ulhoi (Eds.), *Handbook of qualitative research methods in entrepreneurship* (p. 279–300). Cheltenham, UK: Edward Elgar Publishing, Inc.
- Brundin, E. (2007). *Catching it as it happens*. Northampton, MA: Edward Elgar Publishing, p. 279-307.
- Brush, Candida G., et al. (2003). Doctoral education in the field of entrepreneurship. *Journal of Management*, 29(3), 309-331.

- Bruyat, C., & Julien, P.-A. (2001). Defining the field of research in entrepreneurship. *Journal of Business Venturing*, 16(2), 165-180. doi: [http://dx.doi.org/10.1016/S0883-9026\(99\)00043-9](http://dx.doi.org/10.1016/S0883-9026(99)00043-9).
- Bryman, A. & Burgess, R. G. (1994) Reflections on qualitative data analysis. In Bryman, A. & Burgess, R. G. (Eds.) *Analyzing qualitative data*. London, Routledge.
- Bogdan, R., & Taylor, S. J. (1975). *Introduction to qualitative research methods: A phenomenological approach to the social sciences*. John Wiley & Sons.
- Boker S. M., Nesselroade J. R. (2002). A method for modeling the intrinsic dynamics of intraindividual variability: Recovering the parameters of simulated oscillators in multi-wave panel data. *Multivariate Behavioral Research*, 37, 127–160.
- Bolger, N., Davis, A. & Rafaeli, E. (2003) Diary methods: capturing life as it is lived. *Annual Review of Psychology*, 54: 579-616.
- Bolger, N., & Laurenceau, J. P. (2013). *Intensive longitudinal methods: An introduction to diary and experience sampling research*. Guilford Press.
- Boyd, D. P. & Gumpert, D. E. (1983). Coping with Entrepreneurial Stress. *Harvard Business Review*, 4: 44-46.
- Bullough, A. & Renko, M. (2013). Entrepreneurial resilience during challenging times. *Business Horizons*, 56(3), 343–350. <http://doi.org/10.1016/j.bushor.2013.01.001>
- Bullough, A., Renko, M., & Myatt, T. (2014). Danger zone entrepreneurs: The importance of resilience and self-efficacy for entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 38(3), 473-499.
- Busenitz, L. W. & Barney, J. B. (1997). Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making. *Journal of Business Venturing*, 12, 9–30.
- Busenitz, L. W., & Lau, C. M. (1996). A cross-cultural cognitive model of new venture creation. *Entrepreneurship Theory & Practice*, 20(4), 25-40.
- Bushnell, D. M., Martin, M. L., & Parasuraman, B. (2003). Electronic versus paper questionnaires: A further comparison in persons with asthma. *Journal of Asthma*, 40, 751–762.
- Burrell, G. & Morgan, G. (1979). *Sociological paradigms and organisational analysis*. London, UK: Heinemann Educational Books.
- Bygrave, W. (1989). The entrepreneurship paradigm (I): A philosophical look at its research methodologies. *Entrepreneurship Theory and Practice*, 14, 7–26.

- Bygrave, W. (2006). The entrepreneurship paradigm (I) revisited. In H. Neergard & J. Parm Ulhoi (Eds.), *Handbook of qualitative research methods in entrepreneurship* (p. 17–48). Cheltenham, UK: Edward Elgar Publishing, Inc.
- Byrne, O. (2013). The Entrepreneur's Experience of Business Failure: Adopting a Sensemaking and a Process Perspective. University of Strathclyde, Doctoral Thesis.
- Bytheway, B. & Johnson, J. (2002). 'Doing diary-based research', in Jamieson, A. and Victor, C.R. (eds). *Researching Ageing and Later Life: the Practice of Social Gerontology*, Oxford: Blackwells Publishing, pp. 155-74.
- Casson, M. C. (1982). *The Entrepreneur: An Economic Theory*, Oxford: Martin Robertson, 2nd. ed. Edward Elgar, 1999.
- Casson, M. (1999). The economics of the family firm. *Scandinavian economic history review*, 47(1), 10-23.
- Cassuli, L. (2011). Making Internationalisation Decisions: How Heuristics and Biases affect the Reasoning Processes of Leaders of Small and Medium-Sized Firms. University of Glasgow, Doctoral Thesis.
- Cardon, M. S., & McGrath, R.G., (1999). When the going gets tough...Toward a psychology of entrepreneurial failure and re-motivation, paper presented at the Frontiers of Entrepreneurship Research Conference. Babson College
- Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. (2009). The nature and experience of entrepreneurial passion. *Academy of Management Review*, 34(3), 511–532.
- Carmel, E. (1999). Concepts, context and discourse in a comparative case study. *International Journal of Social Research Methodology*, 2(2), 141-150.
- Carter, N. M., Gartner, W. B., & Reynolds, P. D. (1996). Exploring start-up event sequences. *Journal of Business Venturing*, 11(3), 151–166.
- Cave, F., Eccles, S., & Rundle, M. (2001). An exploration of attitudes to entrepreneurial failure: a learning experience or an indelible stigma. In *Proceedings of the 2001 Babson College-Kauffman Foundation Entrepreneurship Research Conference: Jonkoping, Sweden (May)*.
- Chandler, G. N., & Hanks, S. H. (1993). Measuring the performance of emerging businesses: A validation study. *Journal of Business Venturing*, 8(5), 391-408.
- Chandler, G.N. & Jansen, E. (1992). The Founder's Self-assessed Competence and Venture Performance. *Journal of Business Venturing*, 7(3), 223-236.
- Chandler, G. N. & Lyon, D.W. (2001). Methodological issues in entrepreneurship research: the past decade. *Entrepreneurship Theory and Practice*, 25(4), 101–113.

References

- Charney, D. S. (2004). Psychobiological mechanisms of resilience and vulnerability: implications for successful adaptation to extreme stress. *American Journal of Psychiatry*, *161*(2), 195-216.
- Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*. [https://doi.org/10.1016/S0883-9026\(97\)00029-3](https://doi.org/10.1016/S0883-9026(97)00029-3).
- Choo, C. W. (2008). Organizational disasters: Why they happen and how they may be prevented. *Management Decision*, *46*(1), 32-45.
- Cicchetti, D. & Garmezy, N. (1993). Prospects and promises in the study of resilience. *Cambridge University Press*, *5*(4), 497-502.
DOI: <https://doi.org/10.1017/S0954579400006118>
- Coelho, P.R.P. & McClure, J.E. (2005). Learning from failure. *Mid-American Journal of Business*, *20*(1), 13-20.
- Cohen, F., & Lazarus, R. S. (1979). Coping with the stresses of illness. *Health psychology: A handbook*, 217-254.
- Collopy, F. (1998). Biases in retrospective self-reports of time use: An empirical study on computer users. *Management Science*, *42*(5): 758-767.
- Collins, C. J., Hanges, P. J., & Locke, E. E. (2004). The relationship of achievement motivation to entrepreneurial behavior: A meta-analysis. *Human Performance*, *17*, 95–117.
- Cooper, C. L., & Davidson, M. (1987). Sources of stress at work and their relation to stressors in non-working environments. *Psychological factors at work and their relation to health*, 99-123.
- Cope, J. (2005a). Toward a dynamic learning perspective of entrepreneurship. *Entrepreneurship: Theory and Practice*, *29*(4), 373–397.
<http://doi.org/10.1111/j.1540-6520.2005.00090.x>
- Cope, J. (2005b). Researching Entrepreneurship through Phenomenological Inquiry: Philosophical and Methodological Issues. *International Small Business Journal*, *23*(2), 163-189. doi: 10.1177/0266242605050511
- Cope, J. (2011). Entrepreneurial learning from failure: An interpretative phenomenological analysis. *Journal of Business Venturing*, *26*(6), 604–623.
- Cope, J. & Watts, G. (2000). Learning by doing—an exploration of experience, critical incidents and reflection in entrepreneurial learning. *International Journal of Entrepreneurial Behaviour & Research*, *6*(3).
- Corner, P.D., Singh, S., & Pavlovich, K. (2017). Entrepreneurial resilience and venture failure. *International Small Business Journal*, *35*(6), 687-708.

References

- Costa, S. P. (2014). Business model change in early-stage university spin-offs (Doctoral dissertation, University of Strathclyde).
- Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, *10*(1), 75-87.
- Creswell, J. W. (2003). A framework for design. *Research design: Qualitative, quantitative, and mixed methods approaches*, Sage Publications. 9-11.
- Cunliffe, A. (2011). Crafting qualitative research: Morgan & Smircich 30 years on. *Organizational Research Methods*, *14*(4), 647-673.
- Curran P. J., Bauer D. J. (2011). The disaggregation of within-person and between-person effects in longitudinal models of change. *Annual Review of Psychology*, *62*, 583-619.
- Dabney, D. A. & Berg, B. L. (1994) Perceptions of drug and supply diversion among nurses. *Free Inquiry in Creative Sociology*, *22*, 13-22.
- Dahles, H., & Susilowati, T. P. (2015). Business resilience in times of growth and crisis. *Annals of Tourism Research*, *51*, 34-50
- Dai, L., Maksimov, V., Gilbert, B. A., & Fernhaber, S. A. (2014). Entrepreneurial orientation and international scope: The differential roles of innovativeness, proactiveness, and risk-taking. *Journal of Business Venturing*, *29*(4), 511-524. <https://doi.org/http://dx.doi.org/10.1016/j.jbusvent.2013.07.004>
- Davidsson, P. (2003). The domain of entrepreneurship research: Some suggestions. In *Cognitive approaches to entrepreneurship research*, 315-372. Emerald Group Publishing Limited. [http://doi.org/doi:10.1016/S1074-7540\(03\)06010-0](http://doi.org/doi:10.1016/S1074-7540(03)06010-0)
- Davidsson, P. (2005). Paul D. Reynolds: Entrepreneurship research innovator, coordinator, and disseminator. *Small Business Economics*, *24*(4), 351-358.
- Davidsson, P. (2007). Method challenges and opportunities in the psychological study of entrepreneurship. *The Psychology of Entrepreneurship*, 287-323.
- Davidsson, P. (2008). Looking back at 20 years of entrepreneurship research: what did we learn. *Entrepreneurship sustainable growth and performance*, 13-26
- Davidsson, P., & Gordon, S. R. (2016). Much ado about nothing? The surprising persistence of nascent entrepreneurs through macroeconomic crisis. *Entrepreneurship Theory & Practice*, *40*(4), 915-941
- Deakins, D., & Freel, M. (1998). Entrepreneurial learning and the growth process in SMEs. *The Learning Organization*, *5*(3), 144-155.

- Dej, D. (2010). Defining and measuring entrepreneurial success. In M. Lukes & M. Laguna (Eds.), *Entrepreneurship: A psychological approach*, 89–102. Prague: Oeconomica Publishers.
- Delmar, F., & Wennberg, K. (2010). *Knowledge intensive entrepreneurship: The birth, growth and demise of entrepreneurial firms*. Edward Elgar Publishing.
- Denrell, J. (2003), Vicarious learning, undersampling of failure, and the myths of management, *Organization Science*, 14(3), 227-243.
- Denzin, N. K. & Lincoln, Y. S. (eds) (1994) *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage.
- Dess, G. G., Lumpkin, G. T., & Covin, J. G. (1997). Entrepreneurial strategy making and firm performance: Tests of contingency and configurational models. *Strategic Management Journal*, 18(9), 677-695.
- Dew, N. & Sarasvathy, S. D. (2007). Innovations, Stakeholders & Entrepreneurship. *Journal of Business Ethics*, 74(3). Retrieved from <http://papers.ssrn.com/abstract=1437175>
- Dewald, J., & Bowen, F. (2010). Storm clouds and silver linings: Responding to disruptive innovations through cognitive resilience. *Entrepreneurship Theory & Practice*, 34(1), 197-218.
- Dewe, P. J., & Guest, D. E. (1990). Methods of coping with stress at work: A conceptual analysis and empirical study of measurement issues. *Journal of Organizational Behavior*, 11(2), 135–150.
- Dey, I. (1993). *Qualitative data analysis: A user-friendly guide for social scientists*. New York: Routledge.
- Dever, J. E. (2009). *An analysis of the antecedents and consequences of entrepreneurial failure on the portfolio entrepreneur*. University of Strathclyde, Doctoral Thesis.
- Dijkhuizen, J., Gorgievski, M., van Veldhoven, M., Schalk R. (2016) Feeling successful as an entrepreneur: a job demands - resources approach. *International Entrepreneurship Management Journal*, 12(2), 555-73. Retrieved from: <https://doi.org/10.1007/s11365-014-0354-z>
- Dimov, D. (2010). Nascent entrepreneurs and venture emergence: Opportunity confidence, human capital, and early planning. *Journal of Management Studies*, 47, 1123–53.
- Dimov, D. (2011). Grappling with the unbearable elusiveness of entrepreneurial opportunities. *Entrepreneurship Theory & Practice*, 35(1), 57-61.

References

- Drnovšek, M., & Glas, M. (2001). *Entrepreneurial intentions of nascent entrepreneurs: the case of students in entrepreneurship and MBA programmes*.
- Drnovsek, M., Örtqvist, D. & Wincent, J. (2010). The effectiveness of coping strategies used by entrepreneurs and their impact on personal well-being and venture performance. *Zbornik Radova Ekonomski Fakultet u Rijeka*, 28(2), 193–220.
- Duening, T. N. (2010). Five minds for the entrepreneurial future: Cognitive skills as the intellectual foundation for next generation entrepreneurship curricula. *The Journal of Entrepreneurship*, 19(1), 1-22.
- Eckhardt, J. T., & Shane, S. A. (2003). Opportunities and entrepreneurship. *Journal of Management*, 29(3), 333-349.
- Elliott, H. (1997). The use of diaries in sociological research on health experience, *Sociological Research Online*, 2(2).
- Endler, N. S., & Magnusson, D. (1977). The interaction model of anxiety: An empirical test in an examination situation. *Canadian Journal of Behavioural Science*, 9(2), 101.
- van Essen, M., Strike, V. M., Carney, M., & Sapp, S. (2015). The resilient family firm: Stakeholder outcomes and institutional effects. *Corporate Governance: An International Review*, 23(3), 167-183.
- Everett, J., & Watson, J. (1998). Small business failure and external risk factors. *Small Business Economics*, 11(4), 371-390.
- Fahrenberg, J., Myrtek, M., Pawlik, K. & Perrez, M. (2007). Ambulatory assessment—monitoring behavior in daily life settings: A behavioral-scientific challenge for psychology. *European Journal of Personality Assessment*, 23: 206–213. DOI: 10.1027/1015-5759.23.4.206.
- Feder, A., Nestler, E. J., & Charney, D. S. (2009). Psychobiology and molecular genetics of resilience. *Nature Reviews Neuroscience*, 10(6), 446–457. doi:10.1038/nrn2649
- Fisher, C. D. and To, M. L. (2012). Using experience sampling methodology in organizational behavior. *Journal of Organisational Behaviour*, 33: 865–877. doi: 10.1002/job.1803
- Fisher, C. D., Minbashian, A., Beckmann, N.; Wood, R. E. (2013). Task appraisals, emotions, and performance goal orientation. *Journal of Applied Psychology*, 98(2), Mar 2013, 364-373. doi: <http://dx.doi.org/10.1037/a0031260>
- Flick, U. (2002). *An introduction to qualitative research*, London, Sage.

- Forbes, D. P. (2005). The effects of strategic decision making on entrepreneurial self-efficacy. *Entrepreneurship Theory and Practice*.
<https://doi.org/10.1111/j.1540-6520.2005.00100.x>
- Frankish, J.S., Roberts, R. G., Coad, A., Spears, T.C. & Storey, D. J. (2013). Do entrepreneurs really learn? Or do they just tell us that they do? *Industrial and Corporate Change*, 22(1), 73-106. doi: <https://doi.org/10.1093/icc/dts016>
- Frese, M., & Gielnik, M. M. (2014). The Psychology of Entrepreneurship. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 413–438.
- Fredrickson, B. L. (2000). Cultivating positive emotions to optimize health and well-being. *Prevention & Treatment*, 3(1), 1a.
- Friborg, O., Martinussen, M., & Rosenvinge, J. H. (2006). Likert-based vs. semantic differential-based scorings of positive psychological constructs: A psychometric comparison of two versions of a scale measuring resilience. *Personality and Individual Differences*, 40(5), 873-884.
- Gable, S. L., & Reis, H. T. (1999). Now and then, them and us, this and that: Studying relationships across time, partner, context, and person. *Personal Relationships*, 6: 415–432.
- Gartner, W.B. (1985). A Conceptual Framework for Describing the Phenomenon of New Venture Creation. *The Academy of Management Review*, 10(4) (Oct., 1985), 696-706. Available online: <http://www.jstor.org/stable/258039>
- Gartner, W. B. (1989). Who is an entrepreneur? Is the wrong question. *Entrepreneurship Theory & Practice*, 13(4), 47 - 68.
- Gartner, W. B. (1990). What are we talking about when we talk about entrepreneurship?. *Journal of Business Venturing*, 5(1), 15-28.
- Gartner, W. B. (2001). Is there an elephant in entrepreneurship? Blind assumptions in theory development. *Entrepreneurship Theory & Practice*, 25(4), 27–40.
- Gartner, W. B., Shaver, K. and Liao, J. (2008). Opportunities as attributions: categorizing strategic issues from an attributional perspective. *Strategic Entrepreneurship Journal*, 2, 301–15.
- Gartner, W.B., & Shane, S.A. (1995). Measuring Entrepreneurship over Time. *Journal of Business Venturing*, 10(4): 283–301. doi:10.1016/0883-9026(94)00037-U.
- Gaskell, G. & Bauer, M. W. (2000). Towards public accountability: Beyond sampling, reliability and validity. In Bauer, M. W. & Gaskell, G. (Eds.) *Qualitative researching with text, image and sound*. London, UK: Sage.

References

- Gaskill, L. R., Van Auken, H. E., & Manning, R. A. (1993). A factor analytic study of the perceived causes of small business failure. *Journal of Small Business Management*, 31, 18-18.
- Gatewood, E.J., Shaver, K.G., & Gartner, W.B. (1995). A Longitudinal Study of Cognitive Factors Influencing Start-up Behaviors and Success at Venture Creation. *Journal of Business Venturing* 10(5): 371–91. doi:10.1016/0883-9026(95)00035-7.
- [Glaser, B. G. \(1992\). *Basics of grounded theory analysis: Emergence vs forcing*. Sociology press.](#)
- Glaser, B. G., & Strauss, A. L. (2017). *Discovery of grounded theory: Strategies for qualitative research*. Routledge.
- Gibb, A. A. (1997). 'Small Firms' Training and Competitiveness. Building Upon the Small Business as a Learning Organisation. *International Small Business Journal*, 15(3): 13-29.
- Gibb, A. & Scott, M. (1985). Strategic awareness, personal commitment and the process of planning in the small business. *Journal of Management Studies*, 22(6), 597-631.
- Gioia, D. A., & Pitre, E. (1990). Multiparadigm perspectives on theory building. *Academy of Management Review*, 15(4), 584-602.
- Goffman, E. (1959). *The presentation of self in everyday life*, Garden City, NY: Doubleday.
- Grant, P., & Perren, L. (2002). Small Business and Entrepreneurial Research: Meta-theories, Paradigms and Prejudices. *International Small Business Journal*, 20(2), 185-211. doi: 10.1177/0266242602202004
- Green, J. (1998). Grounded theory and the constant comparative method. *British Medical Journal*, 316, 1064-1065.
- Green, A., Rafaeili, E., Bolger, N., Shrout, P. & Reis, H. (2006). Paper or plastic? Data equivalence in paper and electronic diaries. *Psychological Methods*, 11 (1): 87-105.
- Grégoire, D. A., Barr, P. S. & Shepherd, D. A. (2009). Cognitive Processes of Opportunity Recognition: The Role of Structural Alignment. *Organization Science*, 21(December 2015), pp.413–431. Available at: <http://orgsci.journal.informs.org/cgi/doi/10.1287/orsc.1090.0462>.

- Grégoire, D. A., Corbett, A. C. & McMullen, J. S. (2010). The Cognitive Perspective in Entrepreneurship: An Agenda for Future Research. *Journal of Management Studies*, 48(6), 1443–1477. Available at: <http://doi.wiley.com/10.1111/j.1467-6486.2010.00922.x>.
- Grzywacz, J. G., Carlson, D. S., Kacmar, K. M., & Wayne, J. H. (2007). A multi-level perspective on the synergies between work and family. *Journal of Occupational and Organizational Psychology*, 80(4), 559-574. Available at: <http://doi.wiley.com/10.1348/096317906X163081>
- Grzywacz, J. G. & Marks, N. F. (2000). Reconceptualizing the work-family interface: an ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health Psychology*, 5(1), 111–126.
- Hall, J., & Hofer, C.W. (. 1993). ‘Venture Capitalists’ decision Criteria in New Venture Evaluation. *Journal of Business Venturing*, 8, :25-42.
- Hanscom, B., Lurie, J. D., Homa, K., & Weinstein, J. N. (2002). Computerized questionnaires and the quality of survey data. *Spine*, 27(16), 1797-1801.
- Harrison, R. T. and Leitch, C. M. (2005), Entrepreneurial Learning: Researching the Interface Between Learning and the Entrepreneurial Context. *Entrepreneurship Theory & Practice*, 29: 351–371. DOI:10.1111/j.1540-6520.2005.00089.x
- Hart, S. (1992). ‘An integrative framework for strategy making processes’, *Academy of Management Review*, 17, 327–351.
- Haynie, M. & Shepherd, D.A. (2009). A measure of adaptive cognition for entrepreneurship research. *Entrepreneurship Theory & Practice*, 33(3), 695-714.
- Haynie, M., Shepherd, D.A., & Patzelt, H. (2012). Cognitive Adaptability and an Entrepreneurial Task: The Role of Metacognitive Ability and Feedback. *Entrepreneurship Theory & Practice*, 36(2), 237-265.
- Hayton, J.C., Cacciotti, G., Giazitzoglu, A., Mitchell, J. R., & Ainge, C. (2013). Understanding fear of failure in Entrepreneurship: A cognitive process framework. *Frontiers of Entrepreneurship Research*, 33(6): 1–34. Available at: <http://digitalknowledge.babson.edu/fer/vol33/iss6/1>
- Hayward, M. L. A., Forster, W. R., Sarasvathy, S. D., & Fredrickson, B. L. (2010). Beyond hubris: How highly confident entrepreneurs rebound to venture again, *Journal of Business Venturing*, 25(6), 569-578.
- Hektner, J. M., Schmidt, J.A., & Csikszentmihalyi, M. (2007). *Experience sampling method: Measuring the quality of everyday life*. Thousand Oaks, CA: Sage.

- Hernes, T. (2014). *A Process Theory of Organization*. Oxford: Oxford University Press.
- Herron, L., & Robinson Jr, R. B. (1993). A structural model of the effects of entrepreneurial characteristics on venture performance. *Journal of Business Venturing*, 8(3), 281-294.
- Helton, W. S., Dember, W. N., Warm, J. S., & Matthews, G. (1999). Optimism, pessimism, and false failure feedback: Effects on vigilance performance. *Current Psychology*, 18(4), 311–325. <http://doi.org/10.1007/s12144-999-1006-2>
- Hisrich, R., Langan-Fox, J., & Grant, S. (2007). Entrepreneurship research and practice: a call to action for psychology. *American Psychologist*, 62(6): 575.
- Hitt, M. A., Ireland, R. D. & Hoskisson, R.E. (2007). *Strategic Management: Competitiveness and Globalization*, 7th edition. Ohio: Thomson, South Western.
- Hmieleski, K. M., & Carr, J. C. (2007). The relationship between entrepreneur psychological capital and well-being. *Frontiers of Entrepreneurship Research*.
- Hofer, S. M., & Sliwinski, M. J. (2006). Design and analysis of longitudinal studies on aging. In *Handbook of the psychology of aging*, 15-37. Academic Press.
- Hoffman, L. (2015). *Longitudinal analysis: Modeling within-person fluctuation and change*. Routledge.
- Hoffman, L. & Stawski, R.S (2009). Persons as Contexts: Evaluating Between-Person and Within-Person Effects in Longitudinal Analysis. *Research in Human Development*, 6(2-3), 97-120. Available at DOI: 10.1080/15427600902911189
- Holland, D. V. & Shepherd, D. A. (2011). Deciding to Persist: Adversity, Values, and Entrepreneurs' Decision Policies. *Entrepreneurship Theory & Practice*, 37(2), 331-358.
- Holroyd, K. A., & Lazarus, R. S. (1982). Stress coping and somatic adaptation in Goldberger, L et Breznitz, S (eds) *Handbook of stress, theoretical and clinical aspects*, 21-35.
- Honig, B. (2001). Learning strategies and resources for entrepreneurs and intrapreneurs. *Entrepreneurship Theory & Practice*, 26(1), 21-34.
- Hornaday, J. A., & Aboud, J. (1971). Characteristics of success entrepreneurs. *Personnel Psychology*, 24, 141-153.
- Hmieleski, K. M., & Baron, R. A. (2009). Entrepreneurs' optimism and new venture performance: A social cognitive perspective. *Academy of Management Journal*, 52(3): 473-488.

- Jack, S. L., Drakopoulou-Dodd, S., & Anderson, A. R. (2004). Social structures and entrepreneurial networks: the strength of strong ties. Retrieved from <https://openair.rgu.ac.uk/handle/10059/676>
- Jenkins, A. S., Wiklund, J. & Brundin, E. (2014). Individual Responses to Firm Failure: Appraisals, Grief, and the Influence of Prior Failure Experience. *Journal of Business Venturing*, 29(1). doi:10.1016/j.jbusvent.2012.10.006.
- Jennings, J. E., Edwards, T., Devereaux Jennings, P., & Delbridge, R. (2015). Emotional arousal and entrepreneurial outcomes: Combining qualitative methods to elaborate theory. *Journal of Business Venturing*, 30(1), 113–130.
- Jennings, J. E. & McDougald, M.S., 2007. Work-family interface experiences and coping strategies: implications for entrepreneurship research and practice. *Academy of Management Review*, 32(3), 747–760. Available at: <http://amr.aom.org/cgi/doi/10.5465/AMR.2007.25275510>.
- Jensen, E.A. & Laurie, A.C. (2016) *Doing Real Research: A Practical Guide to Social Research*. Sage.
- Johnson, J. C. (Ed.). (1990). *Selecting ethnographic informants* (Vol. 22). SAGE Publications, Incorporated.
- Johnson, J. & Bytheway B. (2001). An evaluation of the use of diaries in a study of medication in later life, *International Journal of Social Research Methodology*, 4(3), 183-204.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.
- Johnson, R. & Waterfield, J. (2004) Making words count: the value of qualitative research. *Physiotherapy Research International*, 9, 121-131.
- Jones, R. K. (2000). The unsolicited diary as a qualitative research tool for advanced research capacity in the field of health and illness. *Qualitative Health Research*, 10(4), 555-567.
- Kahneman, D. & Lovallo, D. (1993). Timid choices and bold forecasts: A cognitive perspective on risk-taking. *Management Science*, 39 (1), 17-31.
- Kaish, S., & Gilad, B. (1991). Characteristics of opportunities search of entrepreneurs versus executives: Sources, interests, general alertness. *Journal of Business Venturing*, 6(1), 45–61. [http://doi.org/10.1016/0883-9026\(91\)90005-X](http://doi.org/10.1016/0883-9026(91)90005-X)
- Kammeyer-Mueller, J. D., Judge, T. A., & Scott, B. A. (2009). The role of core self-evaluations in the coping process. *Journal of Applied Psychology*, 94: 177-195.

References

- Katz, J. A., Brockhaus, R. H., & Hills, G. E. (1993). Demographic variables in entrepreneurship research. *Advances in Entrepreneurship, Firm Emergence and Growth, London, UK: JAI Press Inc, 1*.
- Katz, J., & Gartner, W. B. (1988). Properties of emerging organizations. *Academy of Management Review, 13*(3), 429-441.
- Kazanjian, R., & Rao, H. (1999). The creation of capabilities in new ventures: A longitudinal study. *Organization Studies, 20*: 125-142.
- Kelle, U. (2000) Computer-assisted analysis: Coding and indexing. In Bauer, M. W. & Gaskell, G. (Eds.) *Qualitative researching with text, image and sound*. London, UK: Sage.
- Kent, P. (2017). Fluid intelligence: A brief history, *Applied Neuropsychology: Child, 6*(3), 193-203, DOI: 10.1080/21622965.2017.1317480
- Kessler, A., & Frank, H. (2009). Nascent entrepreneurship in a longitudinal perspective: The impact of person, environment, resources and the founding process on the decision to start business activities. *International Small Business Journal, 27*(6), 720-742.
- Kirk, J. & Miller, M. (1986) *Reliability and validity in qualitative research*, London, UK: Sage.
- Kirshner, D. & Whitson, J. (1997) *Situated Cognition: Social, Semiotic, and Psychological Perspectives*, Psychology Press, Lawrence Erlbaum Associates.
- Kirzner, I. M. (1980). The primacy of entrepreneurial discovery. *The prime mover of progress: The entrepreneur in capitalism and socialism*, 3-30.
- Kirzner, I. M. (1982). *Uncertainty, discovery, and human action: A study of the entrepreneurial profile in the Misesian system*, 139-159. na.
- Kirzner, I. M. (1997). Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of Economic Literature, 35*: 60-85.
- Kozlowski, S. W. J., Watola, D. J., Jensen, J. M., Kim, B. H., & Botero, I. C. (2009). Developing adaptive teams: A theory of dynamic team leadership. In E. Salas, G. F. Goodwin, & C. S. Burke (Eds.), *The organizational frontiers series. Team effectiveness in complex organizations: Cross-disciplinary perspectives and approaches*, 113-155. New York, NY, US: Routledge/Taylor & Francis Group.
- Knowles, M. (1990) *The adult learner. A neglected species*, 4th Edition. Houston: Gulf Publishing.
- Knight, P. (2002). A systemic approach to professional development: learning as practice. *Teaching and Teacher Education, 18*(3), 229-241.

- Krueger, J. (2000). The projective perception of the social world. In *Handbook of social comparison* (323-351). Springer, Boston, MA.
- Krueger, N. F. (2007). What Lies Beneath? The Experiential Essence of Entrepreneurial Thinking. *Entrepreneurship: Theory and Practice*, 31(1), 123-38.
- Krueger, N. F. (2008). Entrepreneurial Resilience: real & perceived barriers to implementing entrepreneurial intentions. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1155269.
- Krueger, N. F., & Brazeal, D. V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory & Practice*, 18(3), 91-104.
- Kubey, R., Larson, R. and Csikszentmihalyi, M. (1996), Experience Sampling Method Applications to Communication Research Questions. *Journal of Communication*, 46: 99–120. DOI: 10.1111/j.1460-2466.1996.tb01476.x
- Kuhn, T. S. (1962). The structure of scientific revolutions. *Chicago and London*.
- Kuhn, T. S. (2000). Metacognitive development. *Current Directions in Psychological Science*, 9(5), 178-181.
- Kushner, K. E. & Morrow, R. (2003) Grounded theory, feminist theory, critical theory: Toward theoretical triangulation. *Advances in Nursing Science*, 26, 30-43.
- Kvale, S. (1996) *Interviews: An introduction to qualitative research interviewing*, Thousand Oaks, CA, Sage.
- Lafuente, A., & Salas, V. (1989). Types of entrepreneurs and firms: The case of new Spanish firms. *Strategic Management Journal*, 10(1), 17-30.
- Lave, J. & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, England: Cambridge University Press.
- Lazarus, R. S. (1966). Psychological stress and the coping process.
- Lazarus, R. S. (1991). Cognition and motivation in emotion. *American Psychologist*, 46(4), 352.
- Lazarus, R. S. & Launier, R. (1978). Stress-related transactions between person and environment. In L.A. Pervin and M. Lewis (eds), *Perspectives in interactional psychology*. New York: Plenum.
- Lazarus, R. S. & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.
- Lee, J. & Wang, J. (2017). Developing entrepreneurial resilience: implications for human resource development. *European Journal of Training and Development*, 41(6), 519-539, <https://doi.org/10.1108/EJTD-12-2016-0090>

References

- Lee, R. M. (1993). *Doing research on sensitive topics*, Newbury Park, CA, Sage.
- Lewin, K. (1938). The conceptual representation and the measurement of psychological forces. Durham, NC: Duke Univer. Press.
- Lewin, K. (1951). *Field theory in social science: selected theoretical papers* (edited by Dorwin Cartwright.).
- Lichtenstein, B. B., Carter, N. M., Dooley, K. J., & Gartner, W. B. (2007). Complexity dynamics of nascent entrepreneurship. *Journal of Business Venturing*, 22(2), 236–261. <https://doi.org/10.1016/j.jbusvent.2006.06.001>
- Loasby, B. (1998). Decision premises and economic development. Paper presented at *DRUID 1998 Summer Conference*, Bornholm, 9-11 June.
- Locke, E. A., & Latham, G. P. (1990). Work motivation and satisfaction: Light at the end of the tunnel. *Psychological Science*, 1(4), 240-246.
- Lofland, J. & Lofland, L. H. (1995) *Analysing social settings: A guide to qualitative observation and analysis*, Belmont, CA, Wadsworth.
- Lonkila, M. (2001) Grounded theory as an emerging paradigm for computer-aided qualitative data analysis. In Denzin, N. K. & Lincoln, Y. S. (Eds.) *The American tradition in qualitative research*. Cambridge, UK: Sage.
- Louis, M. R., & Sutton, R. I. (1991). Switching Cognitive Gears: From Habits of Mind to Active Thinking. *Human Relations*, 44(1), 55–76. <https://doi.org/10.1177/001872679104400104>
- Low, M. B., & MacMillan, I. C. (1988). Entrepreneurship: Past research and future challenges. *Journal of Management*, 14(2), 139-161.
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of management Review*, 21(1), 135-172.
- Luthans, F., & Davis, T. R. V. (1982). An Idiographic Approach to Organizational Behavior Research: The Use of Single Case Experimental Designs and Direct Measures. *Academy of Management Review*.
- MacMillan, I. C., Katz, J. (1992), Idiosyncratic Milieus of Entrepreneurial Research: The Need for Comprehensive Theories. *Journal of Business Venturing*, 7(1), 1-8, Available at SSRN: <https://ssrn.com/abstract=1505855>
- Mauss, I. B., & Robinson, M. D. (2009). Measures of emotion: A review. *Cognition and Emotion*, 23(2): 209-237.

References

- Manimala, M. J. (1992a). Entrepreneurial Heuristics: a comparison between high PI and low PI venture. *Journal of Business Venturing*, 7(6), 477-504.
- Manimala, M. J. (1992b). Innovative entrepreneurship: Testing the theory of environmental determinism. *Entrepreneurship Theory at the Crossroads: Paradigms and Praxis*, 21-40.
- Mann, K., Gordon, J., & MacLeod, A. (2009). Reflection and reflective practice in health professions education: a systematic review. *Advances in health sciences education*, 14(4), 595.
- Manzano-García, G., & Calvo, J. C. A. (2013). Psychometric properties of Connor-Davidson Resilience Scale in a Spanish sample of entrepreneurs. *Psicothema*, 25(2), 245-251.
- Marceil, J. C. (1977). Implicit dimensions of idiography and nomothesis: A reformulation. *American Psychologist*, 32(12), 1046–1055.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *The American Psychologist*, 56(3), 227–238.
- Masten, A. S. (2011). Resilience in children threatened by extreme adversity: Frameworks for research, practice, and translational synergy. *Development and Psychopathology*, 23(2), 493-506.
- Masterman, M. (1970). The nature of a paradigm. Criticism and the growth of knowledge, eds. I. Lakatos, and A. Musgrave.
- McCubbin, H. I. & Pallerson, J. M. (1983). The family stress process: The double ABC model of adjustment and adaptation. *Marriage & Family Review*, 6(1-2), 7-37.
- McCabe, K. O., Mack, L., & Fleeson, W. (2011). A guide to data cleaning in experience-sampling studies. In M. R. Mehl & T. S. Conner (Eds.), *Handbook of research methods for studying daily life* (321–338). New York, NY: Guilford Press.
- McCabe, K. O., Mack, L., & Fleeson, W. (2011). A guide to data cleaning in experience-sampling studies. In M. R. Mehl & T. S. Conner (Eds.), *Handbook of research methods for studying daily life* (321–338). New York, NY: Guilford Press.
- McCabe, K. O., Mack, L., & Fleeson, W. (2011). A guide to data cleaning in experience-sampling studies. In M. R. Mehl & T. S. Conner (Eds.), *Handbook of research methods for studying daily life* (pp. 321–338). New York, NY: Guilford Press.
- McClelland, D. C. (1961). *The achieving society*. Princeton, NJ: Van Nostrand.
- McGrath, J.E. (Ed.). (1970). *Social and psychological factors in stress*. New York: Holt, Rinehart and Winston, Inc.

- McGrath, R. G. (1999). Falling forward: Real options reasoning and entrepreneurial failure. *Academy of Management Review*, 24(1), 13–30.
- McMullen, J. S. & Dimov, D. (2013). Time and the entrepreneurial journey: The problems and promise of studying entrepreneurship as a process. *Journal of Management Studies*, 50(8), 1481–1512.
- Mellahi, K., & Wilkinson, A. (2010). Managing and Coping with Organizational Failure: Introduction to the Special Issue. *Group & Organization Management*, 35(5), 531–541. <https://doi.org/10.1177/1059601110383404>
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis* (2nd ed.). Thousand Oakes, CA: Sage Publications, Inc.
- Minniti, M., & Bygrave, W. (2001). A dynamic model of entrepreneurial learning. *Entrepreneurship Theory & Practice*, 25(3): 5-16.
- Mischel, W. (1968). Continuity and change in personality. *American Psychologist*, 24(11), Nov 1969, 1012-1018. <http://dx.doi.org/10.1037/h0028886>
- Mishra, S. (2014). Decision-Making Under Risk: Integrating Perspectives From Biology, Economics, and Psychology. *Personality and Social Psychology Review*, 18(3) 280–307.
- Mitchell, T. R., Thompson, L., Peterson, E., & Cronk, R. (1997). Temporal adjustments in the evaluation of events: The “rosy view”. *Journal of Experimental Social Psychology*, 33(4): 421-448.
- Moos, R. H. (1976). *Human adaptation: Coping with life crises*. Health.
- Moos & Billings, (1983). Conceptualising and Measuring Coping Resources and Processes. In *Handbook of Stress: Theoretical and Critical Aspects*, Goldberger and Breznitz, 212-230.
- Morgan, G. (Ed.). (1983). *Beyond method: Strategies for social research*. Sage.
- Morgan, D. L. (2007). Paradigms Lost and Pragmatism Regained: Methodological Implications of Combining Qualitative and Quantitative Methods. *Journal of Mixed Methods Research*, 1(1), 48–76.
- Morgan, D. L. (2014). *Integrating Qualitative and Quantitative Methods: A Pragmatic Approach*. Sage Publications.
- Morgan, G., & Smircich, L. (1980). The case for qualitative research. *Academy of Management Review*, 5(4), 491-500.
- Morris, M. H., Richardson, J., & Allen, J. 2006. Is the Business Model a useful Strategic Concepts? Conceptual, Theoretical, and Empirical Insights. *Journal*

of Small Business Strategy, 17(1): 27-50.

Morris, M. H., Kuratko, D. F., Schindehutte, M. and Spivack, A. J. (2012), Framing the Entrepreneurial Experience. *Entrepreneurship Theory & Practice*, 36: 11–40. doi: 10.1111/j.1540-6520.2011.00471.x

Morse, J. (1998). What's wrong with random selection? *Qualitative Health Research*, 8, 733-735.

Moroz, P. W. & Hindle, K. (2012). Entrepreneurship as a Process: Toward Harmonizing Multiple Perspectives. *Entrepreneurship Theory and Practice*, 36(4), 781–818. Available at: <http://doi.wiley.com/10.1111/j.1540-6520.2011.00452.x>.

Myers, H. F. (2009). Ethnicity- and socio-economic status-related stresses in context: An integrative review and conceptual model. *Journal of Behavioral Medicine*. <https://doi.org/10.1007/s10865-008-9181-4>

Nagel, T. (1974). What Is It Like to Be a Bat? *The Philosophical Review*, 83(4), 435-450. doi:10.2307/2183914

Neergaard, H., & Ulhøi, J. P. (Eds.). (2007). *Handbook of qualitative research methods in entrepreneurship*. Cheltenham, UK: Edward Elgar Publishing.

Nezlek, J. B. (2012). *Diary Methods for Social and Personality Psychology*. London, UK: The SAGE Library in Social and Personality Psychology Methods. DOI:10.4135/9781446287903.

Ngah, R. & Salleh, Z. (2015) Emotional intelligence and entrepreneurs' innovativeness towards entrepreneurial success: A preliminary study. *American Journal of Economics*, 5(2), 285-290.

Onetti, A., Zucchella, A., Jones, M. V., & McDougall-Covin, P. P. (2010). Internationalization, innovation and entrepreneurship: business models for new technology-based firms. *Journal of Management & Governance*, 16(3), 337–368. Available at: <http://link.springer.com/10.1007/s10997-010-9154-1> [Accessed February 4, 2016].

Oppenheim, A. N. (1992). *Questionnaire Design, Interviewing and Attitude Measurement*. 2nd ed. Pinter.

Osborne, R.L. (1993). Why entrepreneurs fail: How to avoid the traps. *Management Decision*, 31, 18 (14).

Palich, L. E., & Bagby, D. R. (1995). Using cognitive theory to explain entrepreneurial risk-taking: Challenging conventional wisdom. *Journal of Business Venturing*, 10(6), 425-438. [http://doi.org/10.1016/0883-9026\(95\)00082-J](http://doi.org/10.1016/0883-9026(95)00082-J)

Palermo, T. M., Valenzuela, D., & Stork, P. P. (2004). A randomized trial of electronic

- versus paper pain diaries in children: Impact on compliance, accuracy, and acceptability. *Pain*, 107, 213–219.
- Patton, M. Q. (1990) *Qualitative Evaluation and Research Methods* (2nd edn), Newbury Park, CA: Sage.
- Petkova, A. P. (2009). A theory of entrepreneurial learning from performance errors. *International Entrepreneurship and Management Journal*, 5(4), 345.
- Patzelt, H. & Shepherd, D. A. (2011). Negative emotions of an entrepreneurial career: self-employment and regulatory coping behaviors. *Journal of Business Venturing*, 26(2), 226–238. <http://doi.org/10.1016/j.jbusvent.2009.08.002>
- Pearlin, L. & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior*, 19(1), 2–21. <http://doi.org/10.2307/2136539>
- Pech, R. J., & Cameron, A. (2006). An entrepreneurial decision process model describing opportunity recognition. *European Journal of Innovation Management*, 9(1): 61-78. DOI: 10.1108/14601060610640023
- Pettigrew, A. M. (1997). What is a processual analysis? *Scandinavian Journal of Management*, 13(4): 337-348.
- Perren, L. & Ram, M. (2004). Case-Study Method in Small Business and Entrepreneurial Research. *International Small Business Journal*, 22(1), 83–101. <http://doi.org/10.1177/0266242604039482>
- Pittaway, L. (2000). *The Social Construction of Entrepreneurial Behaviour*. 1–430. Retrieved from <https://theses.ncl.ac.uk/dspace/handle/10443/190>
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4): 531-544.
- Politis, D. (2008). Does prior start-up experience matter for entrepreneur's learning? A comparison between novice and habitual entrepreneurs. *Journal of Small Business and Enterprise Development*, 15(3), 472–489.
- Poole, P.P., Gioia, D. A. & Gray, B. (1989). Influence modes, schema change, and organizational transformation. *The Journal of Applied Behavioral Science*, 25(3), 271-289.
- Rauch, A. & Frese, M. (2000). Psychological approaches to entrepreneurial success: A general model and an overview of findings. *International Review of Industrial and Organizational Psychology*, 15: 101-141
- Rauch, A. & Frese, M. (2007). Born to Be an Entrepreneur? Revisiting the Personality Approach to Entrepreneurship. *The Psychology of Entrepreneurship. The Organizational Frontiers*, 41–65.

- Rezvani, M., Nouri, P. & Ahmadi Kafeshani, A. (2013). Identifying the Most Common Techno-Entrepreneurs' Decision Making Biases Leading To Business Failure. *International Journal of Management and Humanity Sciences*, 2(8): 756–764.
- Reis, H. T. and Gable, S. (2000). Event-sampling and other methods for studying every- day experience, pages 190–222. *Handbook of Research Methods in Social and Personality Psychology*. Cambridge University Press, New York, NY, USA.
- Reivich, K. J., Seligman, M. E. P., & McBride, S. (2011). Master resilience training in the U.S. Army. *The American Psychologist*, 66(1), 25–34. <http://doi.org/10.1037/a0021897>
- Reynolds, P. D. (2007). New firm creation in the United States a PSED i overview. *Foundations and Trends in Entrepreneurship*, 3(1), 1-150. doi:10.1561/03000000010
- Reynolds, P. & Miller, B. (1992). New firm gestation: Conception, birth, and implications for research. *Journal of Business Venturing*, 7(5), 405-417.
- Rizvi, S.L. And Ritschel, L.A. (2014). Mastering the art of chain analysis in dialectical behavior therapy. *Cognitive and Behavioral Practice*, 21, 335-349.
- Robinson, M. D., & Clore, G. L. (2002). Belief and feeling: evidence for an accessibility model of emotional self-report. *Psychological Bulletin*, 128(6): 934-960. DOI: 10.1037//0033-2909.128.6.934
- Roe, R. A. (2014a). Performance, motivation and time. In A. J. Shipp, & Y. Fried (Eds.), *Time and work. Vol. 1: How time impacts individuals* (pp. 63–110). London, UK: Routledge/Taylor & Francis.
- Rose, G. (1982). *Deciphering sociological research*. Macmillan International Higher Education.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *psychological monographs: General and applied*, 80, SN 609.
- Roper, S. (1998). Entrepreneurial Characteristics, Strategic Choice and Small Business Performance. *Small Business Economics*, 11(1), 11-24
- Sarasvathy, S.D. (2001). Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency. *The Academy of Management Review*, 26(2), 243-263. Retrieved Accessed: 28 November 2014 from <http://www.jstor.org/stable/259121>
- Sandberg, W. R. (1992). A strategic management's potential contributions to a theory of entrepreneurship. *Entrepreneurship Theory & Practice* 16(1), 73-90.
- Sandberg, W.R. (2003) Case study: Roustam Tariko: Russian entrepreneur.

- Entrepreneurship Theory and Practice*, 27(3): 315–19.
- Sandelowski, M. (1995) Focus on qualitative methods: sample size in qualitative research. *Research in Nursing and Health*, 18, 179–83.
- Sato, T., Hidaka, T., & Fukuda, M. (2009). Depicting the dynamics of living the life: The trajectory equifinality model. In J. Valsiner, P. Molenaar, M. Lyra, & N. Chaudhary (Eds.), *Dynamic process methodology in the social and developmental sciences* (217–240). New York, NY: Springer.
- Savolainen, R. (1993). The sense-making theory: Reviewing the interests of a user-centered approach to information seeking and use. *Information Processing & Management*, 29(1), 13-28.
- Scherer, K. R. (1984). On the nature and function of emotion: A component process approach. *Approaches to Emotion*, 2293, 317.
- Schwarz, N., Kahneman, D., Xu, J., Belli, R., Stafford, F., & Alwin, D. (2009). Global and episodic reports of hedonic experience. *Using calendar and diary methods in life events research*, 157-174.
- Schmitz, B., Klug, J., & Hertel, S. (2012). Collecting and analyzing longitudinal diary data. In B. Laursen, T. D. Little, & L. A. Card (Eds.), *Handbook of Developmental Research Methods*, 181–195. New York, NY: Guilford Press.
- Schumpeter, J. (1934). *The theory of economic development*. Cambridge, MA: Harvard University Press.
- Scott, M. & Lewis, J. (1984), Re-thinking entrepreneurial failure, in *Success and Failure in Small Business*, J. Lewis, J. Stanworth and A. Gibb, (Eds.), Hampshire: Gower.
- Seale, C. (1999). The quality of qualitative research. *Qualitative Inquiry*, 5(4), 465–478. <https://doi.org/10.1177/107780049900500402>
- Seale, C. (2000). Using computers to analyse qualitative data. In Silverman, D. (Ed.) *Doing qualitative research: A practical handbook*. London, UK: Sage.
- Slevin, D. P., & Covin, J. G. (1997). Strategy formation patterns, performance, and the significance of context. *Journal of Management*, 23(2), 189-209.
- Selye, H. (1974). *Stress sans détresse*. Philadelphia: Lippincott.
- Shane, S. & Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. *Academy of Management Review*, 25(1), 217–226. doi:10.5465/AMR.2000.2791611
- Shane, S. & Venkataraman, S. (2001) Entrepreneurship as a field of research: A response to Zahra and Dess, Singh, and Erikson. *Academy of Management*

References

- Review*, 26(1), 13-16.
- Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organizational Science*, 11, 448–469.
- Shane, S. (2001). Organizational incentives and organizational mortality. *Organization Science*, 12(2): 136-160.
- Shane, S., Locke, E.A. & Collins, C.J. (2003). Entrepreneurial motivation. *Human Resource Management Review*, 13(2), 257–279. Available at: <http://www.sciencedirect.com/science/article/pii/S1053482203000172> [Accessed March 13, 2015].
- Shapiro, A. (1975). The displaced, uncomfortable entrepreneur, *Psychology Today*, 8, 83-88.
- Shapiro, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. *Encyclopedia of entrepreneurship*, 72-90.
- Shaver, K. G. & Scott, L.R (1991). Person, process, choice: Psychology of new venture creation. *Entrepreneurship, Theory, and Practice*, 16(2), 23-45
- Shaver, K. G. (2007) Psychological Methods in Entrepreneurship Research. In J. R. Baum, M. Frese, & R. A. Baron (eds.), *The Psychology of Entrepreneurship*: 335-346. Mahwah, N. J.: Lawrence Erlbaum Associates.
- Shepherd, D. A., Douglas, E. J., & Shanley, M. (2000). New venture survival. *Journal of Business Venturing*, 15(5–6), 393–410. [https://doi.org/10.1016/S0883-9026\(98\)00032-9](https://doi.org/10.1016/S0883-9026(98)00032-9)
- Shepherd, D. A. (2003). Learning from business failure: propositions of grief recovery for the self-employed. *Academy of Management Review*, 28(2), 318–328.
- Shepherd, D. A. (2004). Educating Entrepreneurship Students About Emotion and Learning From Failure. *Academy of Management Learning & Education*, 3(3), 274–287.
- Shepherd, D. A. (2011). Multilevel Entrepreneurship Research: Opportunities for Studying Entrepreneurial Decision Making. *Journal of Management*, 37(2): 412–20. DOI:10.1177/0149206310369940.
- Shepherd, D. A. & Cardon, M. S. (2009). Negative Emotional Reactions to Project Failure and the Self-Compassion to Learn from the Experience. *Journal of Management Studies*, 46, 923-949. DOI:10.1111/j.1467-6486.2009.00821.x
- Shepherd, D. A., & Zacharakis, A. (1997). Conjoint analysis: A window of opportunity for entrepreneurship research. *Advances in Entrepreneurship, Firm Emergence and Growth*, 3, 203-248.

References

- Shook, C. L., Priem, R. L., & McGee, J. E. (2003). Venture creation and the enterprising individual: A review and synthesis. *Journal of management*, 29(3), 379-399.
- Silverman, D. (1998). *Harvey Sacks: Social science and conversation analysis*. Oxford University Press on Demand.
- Simon, H. A. (1979). Information processing models of cognition. *Annual Review of Psychology*, 30, 363-396.
- Simon, M., Houghton, S.M., & Aquino, K. (1999). Cognitive biases, risk perception, and venture formation: How individuals decide to start companies. *Journal of Business Venturing*, 15, 113–134.
- Singh, S., Corner, P., & Pavlovich, K. (2007). Coping with entrepreneurial failure. *Journal of Management and Organization*, 13(4), 331–344.
- Singh, S., Corner, P. D., Pavlovich, K., & Doyle, P. (2014). Failed, not finished: A narrative approach to understanding venture failure stigmatization. *Journal of Business Venturing*, 30(1), 150–166.
- Singh, S. & Pavlovich, K. (2011). Being resilient when experiencing venture failure. Full conference paper submitted and accepted in 25th ANZAM Conference, 2011. Available at: <http://www.aut.ac.nz/profiles/smita-singh#sthash.CdCmI6Af.dpuf>
- Sitkin, S.B. (1992). Learning through failure: the strategy of small losses. In: Shaw, B.M., Cummings, L.L. (Eds.), *Research in Organisational Behaviour*, 14, 231–266.
- Silverman, D. (2000). *Doing qualitative research: A practical handbook*, London, UK Sage.
- Smart, D. T., & Conant, J. S. (1994). Entrepreneurial orientation, distinctive marketing competencies and organizational performance. *Journal of Applied Business Research (JABR)*, 10(3), 28-38.
- Sminia, H. (2009). Process research in strategy formation: Theory, methodology and relevance. *International Journal of Management Reviews*, 11(1), 97-125.
- Sminia, H. (2011). Institutional continuity and the Dutch construction industry fiddle. *Organization Studies*, 32(11), 1559-1585. DOI: 10.1177/0170840611425724
- Smith, K. G., Gannon, M. J., Grimm, C., & Mitchell, T. R. (1988). Decision making behavior in smaller entrepreneurial and larger professionally managed firms. *Journal of Business Venturing*, 3(3), 223–232. [https://doi.org/10.1016/0883-9026\(88\)90016-X](https://doi.org/10.1016/0883-9026(88)90016-X)
- Smith, C. A., & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in

- emotion. *Journal of Personality and Social Psychology*, 48(4), 813.
- Smith, K. G. and Cao, Q. (2007). An entrepreneurial perspective on the firm-environment relationship. *Strategic Entrepreneurship Journal*, 1: 329–344. doi:10.1002/sej.25
- Smith, R., McElwee, G., McDonald, S., & Drakopoulou-Dodd, S. (2013). Qualitative entrepreneurship authorship: antecedents, processes and consequences. *International Journal of Entrepreneurial Behavior & Research*, 19(4), 364-386.
- Stake, R. E. (2006). Multiple case study analysis. New York, NY. *Guilford Press*.
- Stewart Jr, W. H., & Roth, P. L. (2004). Data quality affects meta-analytic conclusions: a response to Miner and Raju (2004) concerning entrepreneurial risk propensity.
- Strauss, A. & Corbin, J. (1990) *Basics of qualitative research: Grounded theory procedures and techniques*, Newbury Park, CA, Sage.
- Strauss, A. & Corbin, J. (1994) Grounded theory methodology: An overview. IN Denzin, N. K. & Lincoln, Y. S. (Eds.) *Handbook of qualitative research*. Thousand Oaks, CA, Sage.
- Strauss, A. & Corbin, J. (1998) *Basics of qualitative research: Techniques and procedures for developing grounded theory*, Thousand Oaks, CA, Sage Publications.
- Strauss, A. L. (1987). *Qualitative analysis for social scientists*, Cambridge, UK: Cambridge University Press.
- Strutton, D., & Lumpkin, J. (1992). Relationship between optimism and coping strategies in the work environment. *Psychological Reports*, 71(3), 1179-1186.
- Stokes, D., & Blackburn, R. (2002). Learning the hard way: the lessons of owner-managers who have closed their businesses. *Journal of Small Business and Enterprise Development*, 9(1): 17-27.
- Stone, A. A., Shiffman, S., Atienza, A. A., Nebeling, L. (2007). Historical roots and rationale of ecological momentary assessment (EMA). *The science of real-time data capture: Self-reports in health research*, 3-10.
- Taylor, D. W., & Thorpe, R. (2004). Entrepreneurial learning: a process of co-participation. *Journal of Small Business and Enterprise Development*, 11(2), 203-211.
- Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. *Entrepreneurship Theory and Practice*, 33(3), 669-694.

- Thorne, S. (1997). The art (and science) of critiquing qualitative research. In Morse, J. M. (Ed.) *Completing a qualitative project: Details and dialogue*. Thousand Oaks, CA, Sage.
- Thornton, P. H. (1999). The sociology of entrepreneurship. *Annual Review of Sociology*, 25(1), 19-46.
- Timmons, J. A., (1989). The entrepreneurial mind. *Brick House Publishing*
- Tindall, C. (1994). Issues of evaluation. In Banister, P., Burman, E., Parker, I., Taylor, M. & Tindall, C. (Eds.) *Qualitative methods in psychology: A research guide*. Buckingham, England: Open University Press.
- Tsai, W. M. H., MacMillan, I. C., & Low, M. B. (1991). Effects of strategy and environment on corporate venture success in industrial markets. *Journal of Business Venturing*, 6(1), 9-28.
- Tversky, A. & Kahneman, D. (1974). *Judgment under uncertainty: heuristics and biases*. Cambridge, England: Cambridge University Press Science, 185: 1124–1131.
- Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology*, 86(2), 320–333.
- Ucbasaran, D., Westhead, P., & Wright, M. (2001). The focus of entrepreneurial research: contextual and process issues. *Entrepreneurship Theory & Practice*, 25(4), 57-80.
- Uy, M. A, Foo, M. D., & Song, Z. (2013). Joint effects of prior start-up experience and coping strategies on entrepreneurs' psychological well-being. *Journal of Business Venturing*, 28(5), 583–597
- Uy, M. A., Foo, M. D., & Aguinis, H. (2010). Using Experience Sampling Methodology to Advance Entrepreneurship Theory and Research. *Organizational Research Methods*, 13(1): 31–54. DOI:10.1177/1094428109334977.
- Von Bertalanffy, L. (1968). *Organismic psychology and systems theory* (Vol. 1). Clark University Press.
- Van de Ven, A. H. (1993). The development of an infrastructure for entrepreneurship. *Journal of Business Venturing*, 8(3): 211-230.
- Van de Ven, A. H., & Engleman, R. M. (2004.) Event- and Outcome-Driven Explanations of Entrepreneurship. *Journal of Business Venturing*, 19(3): 343–58. DOI:10.1016/S0883-9026(03)00035-1.
- Van de Ven, A. H., & Poole, M. S. (1995). Explaining development and change in organizations. *Academy of Management Review*, 20(3): 510-540.

References

- Van de Ven, A. H., & Sminia, H. (2012). Aligning process questions, perspectives, and explanations. In *Constructing identity in and around organizations*. Oxford, UK: Oxford University Press, 306-319.
- Van Gelderen, M. (2014). Perseverance Strategies of Enterprising Individuals. *International Journal of Entrepreneurship Behaviour & Research*, 18(6): 630-648. DOI: 10.1108/13552551211268102
- Vesper, K. H. (1982). Research on education for entrepreneurship. *Encyclopaedia of Entrepreneurship*, 321.
- Venkataraman, S. (1997). Value at risk for a mixture of normal distributions: the use of quasi-Bayesian estimation techniques. *Economic Perspectives-Federal Reserve Bank of Chicago*, 21, 2-13.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher mental process*. Cambridge, MA: Harvard University Press.
- Wagoner, B. (2009). The Experimental Methodology of Constructive Microgenesis, Chapter 5 in J. Valsiner et al. (eds.), *Dynamic Process Methodology in the Social and Developmental Sciences*, 99-121. DOI 10.1007/978-0-387-95922-1_5
- Wagoner, B., & Jensen, E. (2014). Microgenetic evaluation: Studying learning in motion. *yearbook of idiographic science: Reflexivity and change*. Charlotte, NC: Information Age Publishers.
- Wang L., Maxwell S. E. (2015). On disaggregating between-person and within-person effects with longitudinal data using multilevel models. *Psychological Methods*, 20: 63–83.
- Watkins-Mathys, L., & Lowe, S. (2005). Small Business and Entrepreneurship Research: The Way Through Paradigm Incommensurability. *International Small Business Journal*, 23(6), 657-677. doi: 10.1177/0266242605057657
- Weiss, R. S. (1994). *Learning from strangers: The art and method of qualitative interview studies*, New York, N.Y., The Free Press.
- Werner, E. E. (2001). *Journeys from childhood to midlife: Risk, resilience and recovery*. Ithaca, NY: Cornell University Press.
- Wheeler, L., & Reis, H. T. (1991). Self-recording of everyday life events: Origins, types, and uses. *Journal of personality*, 59(3), 339-354.
- Whetten, D. A. (1989). What Constitutes a Theoretical Contribution?. *Academy of Management Review*, 14(4), 490-495.
- Whittington, R. (1988). Environmental Structure and theories of strategic choice. *Journal of Management Studies*, 25(6): 521-536

- Wilkinson, A. & Mellahi, K. (2005). Organizational failure: Introduction to the special issue. *Long Range Planning*, 38(3): 233–238.
<http://doi.org/10.1016/j.lrp.2005.05.009>
- Wincent, J., & Örtqvist, D. (2009). Role stress and entrepreneurship research. *International Entrepreneurship and Management Journal*, 5(1): 1-22.
- Wiklund, J. (1999). The sustainability of the entrepreneurial orientation—performance relationship. *Entrepreneurship Theory & Practice*, 24(1), 37-48.
- Wiklund, J., & Shepherd, D. A. (2005). Entrepreneurial orientation and small business performance: A configurational approach. *Journal of Business Venturing*, 20(1), 71–91. <https://doi.org/10.1016/j.jbusvent.2004.01.001>
- Williams, A. (1985). Stress and the entrepreneurial role. *International Small Business Journal*, 3(4), 11–25. doi:10.1177/026624268500300401
- Williams, N., & Vorley, T. (2014). Economic resilience and entrepreneurship: lessons from the Sheffield City Region. *Entrepreneurship & Regional Development*, 26(3-4), 257-281.
- Windle, G., Bennett, K. M., & Noyes, J. (2011). A methodological review of resilience measurement scales. *Health and Quality of Life Outcomes*, 9(1), 8.
- Wong, P. T. P. (1995). *Coping with frustrative stress: A behavioral and cognitive analysis*. In R. Wong (Ed.), *Biological perspective on motivated and cognitive activities*, 339-378. New York: Ablex Publishing.
- Wong, P. T. P. (2006). The Positive Psychology of Persistence and Flexibility. Online source: meaning.ca/archives/presidents_columns/pdfs/pres_col_feb_2006.pdf (Accessed online: Jan 15 2015)
- Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of management Review*, 14(3), 361-384.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E. & Schaufeli, W. B. (2009), Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Occupational and Organizational Psychology*, 82: 183–200. doi:10.1348/096317908X285633
- Yan, A. & Manolova, T.S. (1998) New and small players on shaky ground: A multicase study of emerging entrepreneurial firms in a transforming economy. *Journal of Applied Management Studies*, 7(1), 139.
- Yang, Y. & Danes, S. M. (2015). Resiliency and Resilience Process of Entrepreneurs in New Venture Creation. *Entrepreneurship Research Journal*, 5(1), 1–30.
<http://doi.org/10.1515/erj-2013-0076>

- Yang, T., & Aldrich, H. E., (2012). Out of sight but not out of mind: Why failure to account for left truncation biases research on failure rates. *Journal of Business Venturing*, 27(4): 477-492.
- Yin, R. K. (2003). Case study research: Design and methods. *Sage Publications, Inc*, 5, 11.
- Yin, R. K. (2009). Case Study Research: Design and Methods. (L. Bickman & D. J. Rog, Eds.), Essential guide to qualitative methods in organizational research (Vol. 5). Sage Publications. <https://doi.org/10.1097/FCH.0b013e31822dda9e>
- Zacharakis, A., Meyer, G., DeCastro, J. (1999). Differing perceptions of new venture failure: a matched exploratory study of venture capitalists and entrepreneurs. *Journal of Small Business Management*, 37(3): 1–14.
- Zahra, S. A. (1991). Predictors and financial outcomes of corporate entrepreneurship: An exploratory study. *Journal of Business Venturing*, 6(4), 259-285.
- Zahra, S. A., & Covin, J. G. (1995). Contextual influences on the corporate entrepreneurship-performance relationship: A longitudinal analysis. *Journal of Business Venturing*, 10(1), 43-58.
- Zahra, S. A., & Neubaum, D. O. (1998). Environmental adversity and the entrepreneurial activities of new ventures. *Journal of Developmental Entrepreneurship*, 3(2): 123-140.
- Zhao, H., Seibert, S. (2006). The Big Five personality dimensions and entrepreneurial status: A meta-analytical review. *Journal of Applied Psychology*, 91(2), 259-271.
- Zhao, H., Seibert, S., & Lumpkin, T. (2010). The relationship of personality to entrepreneurial intentions and performance: A meta-analytic review. *Journal of Management*, 36: 381-404.

APPENDICES

Appendix A. Interview Guide

Project: Entrepreneur Diary Study (PhD)	
Date: mm/dd/yyyy	Interview Guide: Version 4 – 14.10.2016

Name of Participant:

ESTIMATED LENGTH = 45 – 50 MINUTES

QUESTIONS	INTERVIEW GUIDANCE
SECTION 1: INTRODUCTION AND BACKGROUND	
<p>My name is Aaron Jensen. I am a researcher at the University of Strathclyde Business School. I am conducting these interviews to help inform research The interview should take no longer than 45 minutes and we are very grateful for your time.</p>	<p>LENGTH: 2 minutes</p> <ul style="list-style-type: none"> • ‘I would like to check, if this is a convenient time to do the interview?’ <ul style="list-style-type: none"> ○ If not, re-schedule • ‘I would like to confirm that you agree with taking part of this research?’ <ul style="list-style-type: none"> ○ If the participant expresses uncertainty, explain the importance of the research and explain that the responses are going to be anonymised for transcription and analysis. ○ If still no, please thank the participant and move on. • ‘I would also like to let you know that I will be recording this interview, to ensure accuracy in my analysis. However, your responses will be anonymised, and information about individual cases will not be passed on to any other third party. Is this ok?’ [START RECORDING!]
SECTION 2: POSITION AND ROLE IN BUSINESS	
<p>1. Could you please describe what your current position is within your business?</p>	<p>LENGTH: 3 minutes</p> <ul style="list-style-type: none"> • What are your main areas of responsibilities? • How has your position changed over time? • How has it been consistent? <p>[Probe for more detail] Could you tell me more about that? etc.</p>
<p>2. Could you please describe what your current role looks like on a daily basis?</p>	<p>LENGTH: 3 minutes</p> <ul style="list-style-type: none"> • What type of activities are you primarily involved with? • How has your role changed over time? • How has it been the consistent?
<p>3. Can you explain to me how you ended up where you are now with this business?</p>	<p>LENGTH: 3 minutes</p> <p>[Probe for more detail]</p>

4. Since you've started, have there been any significant changes or pivotal moments that have helped your business?	LENGTH: 3 minutes <ul style="list-style-type: none"> • What about any changes or pivotal moments that have hurt your business? [Probe for more detail]
5. Could you give me an example of how a typical day might unfold for you?	LENGTH: 3 minutes [Probe for more detail]

SECTION 3: BUSINESS CHALLENGES

6. Could you tell me about a recent challenge that comes to mind?	LENGTH: 4 minutes <ul style="list-style-type: none"> • How do you address this challenge? • What is working/not working? • What could be changed to improve working relationships?
7. Can you think of any routine challenges you keep encountering in your business?	LENGTH: 4 minutes <ul style="list-style-type: none"> • Can you tell me what happened? • How did you deal with it? • How do you address this challenge? • Have you incorporated any lessons from this experience?
8. Can you think of challenges you have encountered so far in your business that you didn't anticipate?	LENGTH: 3 minutes <ul style="list-style-type: none"> • What do you feel lead to this? [Probe for more detail]
9. Can you think of any particular steps that you follow when making decisions about these challenges?	LENGTH: 3 minutes [Probe for more detail]

SECTION 4: EXTERNAL PRESSURES

10. Can you think of a recent time when you felt under pressure in your business?	LENGTH: 3 minutes <ul style="list-style-type: none"> • Can you tell me what happened?
11. Do you feel that any specific external pressures affect how you approach decisions about your business?	LENGTH: 3 minutes [Probe for more detail]

SECTION 5: PERSONAL CAPACITY AND IMPACT

12. Do you feel you currently have the skills, training and resources that your business needs to grow?	LENGTH: 3 minutes <ul style="list-style-type: none"> • Can you please explain this further?
13. To what extent do you feel that you can influence changes within your business?	LENGTH: 3 minutes

	[Probe for more detail]
14. Who would you turn to for strategic business support?	LENGTH: 3 minutes <ul style="list-style-type: none">• Why do you turn to this source of support?
ANY OTHER THOUGHTS ETC. 15. Anything to add that might be relevant to the research?	LENGTH: 0 - 5 minutes
FINISH & WRAP-UP	

Appendix B. Participation Consent

Participation Consent

The following information will help to inform you about why you are being asked to complete this questionnaire and what happens to the information you provide. You'll be asked to provide your consent below:

How much time is involved with participation?

In total you will be asked to complete this initial questionnaire (after you give consent here; about 15 minutes), one initial face-to-face, telephone, or Skype interview with the researcher (about 40 minutes), and provide your personal accounts through electronic submissions twice per week for a 3-month period (about 5 minutes per entry) and one final interview and debrief (about 60 minutes). So that the research can be successfully completed, we would ask that you complete this questionnaire and the diaries fully when they are sent to you. However, you can withdraw from this study at any time, for any reason.

What happens to the information I provide?

Your information will be kept confidential. Only the research team will have access to the information you provide. Your data will be used for research purposes and in a doctoral dissertation to be submitted as part of the completion of doctoral research. Your data will remain confidential and your name will not be associated with any quotations or reported statistics.

Agreement to Participate

Please read the following statements below:


- Once this questionnaire is submitted, I understand I will be asked to participate in an interview with the researcher.
- Thereafter, I will be asked to respond to automated invitations sent to me twice per week to give my thoughts on startup experiences and the challenges I might face over the following next 3-months.
- I fully understand that my participation is voluntary, that I can withdraw at any time.
- When my responses are used for reporting or publication, my name will be replaced with a pseudonym to protect my identity.
- Only the research team (Mr Aaron Jensen) will know my real identity, which will not be disclosed or made public.
- My personal information will not be used outside of the research parameters, nor be shared publicly unless I give my written consent to the principle researcher.
- I understand the information I provide about myself and my business is strictly confidential.
- However, if certain information is disclosed such as indications of criminal behaviour or intentions to harm yourself, the research team may be legally obligated to breach confidentiality.
- I have received adequate information about my participation in this study.

Please indicate whether you understand the information provided above and that you are willing to participate in this study:

I understand and I'm willing to participate in this study.


If you do not agree with any of the statements above, would like clarification before starting, or have difficulties completing this form, please email Aaron (principle investigator) at aaron.jensen@strath.ac.uk.

Appendix C. Recruitment Website

Overview Importance Researcher Criteria Involvement Benefits Privacy Get Started


Entrepreneur Diary Study

Diary Research with Entrepreneurs and their Business Decisions.



Are you an early-stage entrepreneur?

You are invited to participate in a research study about entrepreneur's challenges and business decisions.



Overview

This research focuses on how entrepreneurs handle personal and business challenges while growing their businesses. This diary study follows occasional reports over three-months to track what happens for an entrepreneur and his or her business over this short timeframe.

Research Importance

Who might care and why.

Studying business and working in various jobs before starting a company can help us prepare for the many challenges (e.g., finances, relationships, staff, etc) in our entrepreneurial journey. We use our available experience, knowledge and resources once in the "real world", but we can't prepare for everything. New challenges test us. After things turn out "okay" is when we realise we handled them well. *But when things don't turn out "okay" it's a different story.*

This research is designed to explore how you, as an entrepreneur, respond to various business challenges over a relatively short three-month period. The goal is to look closely at these challenges, your decisions while addressing them and downstream effects from some of your decisions. This is a new approach to look at entrepreneurs' resilience in the face of various challenges and effects on their business.



Researcher

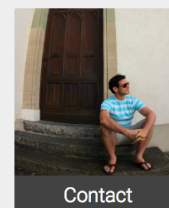
Who is conducting this research?

The research is conducted by **Aaron M Jensen**, a doctoral researcher at the **Hunter Centre for Entrepreneurship**, a research centre at the University of Strathclyde Business School (Glasgow, Scotland). This research combines his personal and professional experiences in challenges of business innovation and questions about business success and failure.




Personal Experience Summary

- 1 Background in health care, retail, policy and information technology.
- 2 Roles for human resources, general management and operations consulting.
- 3 Affinity for systems architecture, business operations, and business analysis.
- 4 Masters degree in marketing at the University of Edinburgh Business School.
- 5 First degree in psychology from Washington State University (USA).

Support for this research is provided from the Hunter Centre for Entrepreneurship staff, with supervisors **Dr Lucrezia Casulli (Lecturer)** and **Dr Sarah Dodd (Professor)**.



Contact

-  LINKEDIN
-  TWITTER
-  MESSAGE

Participation Criteria

Who should participate in this study?

Entrepreneurs who are actively involved in their business are best for this research. The following provides various criteria for this assessment:

Actively involved in key business decisions.	Actively growing the business.	Personal stake in the startup's success.	Core products/services sit within a 'technology' industry.
Actively manage business operations.	Your startup is within 10 years of launching.	Willing to report on your personal experiences with your startup.	Willing to participate in this study for up to 3 months.

These criteria are mainly to check your level of involvement in your startup.

Sound like you?

YES, THIS IS ME.

NOT REALLY ME.

I'M UNCERTAIN.



Yes, this is me!

Excellent! Please look further at what's involved to participate. We very much hope you'll join the study.



What's your time committment?

Your involvement in this study entails the following:

1

Register Interest & Questionnaire

Visit the study website (entrepreneurdiarystudy.org) and register interest (5 minutes) and fill in a questionnaire about your start-up company. About 15 minutes.

2

Interview

Meet the researcher for an initial interview. About 40 to 60 minutes.



3

Recurring Questionnaire (Diary)

Complete an electronic diary entry twice a week for up to 3 months. This will be about 24 entries. Each entry should take 5 minutes.

4

Final Interview

Finally, meet the researcher for a final interview and debriefing about the study. About 60 to 90 minutes.



Participation Benefits

What can you expect to gain?

On a personal level, benefits that you experience from participation in this research will vary. You may find that the diary format of this research helps you to communicate thoughts you would find it difficult to share otherwise. Or, the benefit may be more that this provides you with a form of personal record keeping. Certainly, other benefits may be experienced and this is part of the participation experience.

Regardless of what you experience while participating, you will be provided with a neatly curated copy of your interviews and diary entries, which serves to provide an archive that may bevaluable to you later on when charting your unique entrepreneurial journey. As well, as a participating entrepreneur, you will receive professionally prepared practical guidance based on the research findings.



Privacy

How will your information be handled?

Information gathered during this project is used for research purposes and the contribution to general knowledge in entrepreneurship psychology. The goal here is to advance the academic field and give something back that'll be practical for entrepreneurs in the near future.

Ethical considerations and data protection are crucial to the success of this project and any identifiable information will be kept confidential in research findings. No financial data will appear on the questionnaire. Answers provided by participants will only be linked to the research by anonymized numbers. Only the research team will know your real identity and there will be no public disclosure initiated without fully authorized written consent.

Getting Started

Registration for study is now closed.

Please consider sharing this research project with people you know.



Entrepreneur Diary Study
www.entrepreneurdiarystudy.org



Hunter Centre for Entrepreneurship
University of Strathclyde Business School
199 Cathedral Street
Glasgow G4 0DU
+44 (0)141 548 3482
www.strath.ac.uk



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Appendix D. Diary Study Form

Diary Study

Thank you for your participation in this Entrepreneur Diary Study. Please the space provided for your personal accounts of important challenges, decisions and your assessments from the last few days.

If you have any difficulties completing this form, please email Aaron Jensen (principal investigator) at [email] or text/call [phone number].

Assessment

Have you faced important business challenges in the last few days? [radio options]

- Yes
- No
- Unsure

What challenges have you addressed? [open-text]

How have you decided what to do? [open-text]

What, if anything, do you anticipate will happen following your decisions? [open-text]

Considering your general views about your business, please respond with your level of agreement to the following statements:

[Likert-type scale: 7-point (Strongly Disagree-Strongly Agree), No opinion/Prefer not to say]

'I am pleased with how my business is doing.'

'The current context for my business is particularly challenging.'

'My business faces a high degree of uncertainty.'

'My business decision making tends to be rushed.'

'I have accounted for the major issues facing my business.'

'My business feels out of control.'

'I worry about my business failing.'

'I feel equipped to handle the challenges facing my business.'

'My business makes me feel stressed.'

[/Likert-type scale]

Please use the following space to further explain any of your responses. [open-text]

Appendix E. Aggregate Statistics Matrix

	Summary						Appraisals (<i>f</i> , %)						Inferential			
	Mean	SD	Range	Min	Max	Sample	Positive		Negative		Neutral		<i>df</i>	<i>f</i>	<i>x</i> ²	<i>p</i>
Challenging Contexts	4.6	1.5	2.2	1	7	98	65	67%	25	25%	8	8%	6	92	3.1	0.79
Factor Awareness	4.8	1.5	2.2	1	7	106	76	72%	23	21%	7	7%	6	100	7.7	0.26
Business Uncertainty	4.1	1.9	3.5	1	7	107	39	36%	57	54%	11	10%	6	101	6.3	0.39
Equipped for Challenges	5.3	1.2	1.3	2	7	106	87	82%	10	10%	9	8%	6	100	1.1	0.98
Rushed Decisions	3.1	1.5	2.1	1	7	105	74	70%	14	14%	17	16%	6	99	2.8	0.84
Business Control	2.8	1.4	2.0	1	6	105	75	72%	18	17%	12	11%	6	99	4.2	0.65
Business Progress	5.9	1.3	1.3	3	7	106	87	82%	10	10%	8	8%	6	100	3.6	0.73
Business Stress	3.8	1.7	2.8	1	7	107	40	37%	45	42%	22	21%	6	101	9.5	0.15
Failure Worry	3.9	1.8	3.3	1	7	106	47	44%	46	43%	13	12%	6	100	1.7	0.94

Note 1: Reference with 10.2 Methodological approach to cross-case synthesis

Note 2: Inferential statistics regard differing conditions (i.e., presence or absence of reported challenges) for appraisals presented during the diary study. This *posteriori* analysis explores aggregated variance. Chi-square (X^2) show no expected differences between observations for each appraisal condition. Findings are not significant in all comparisons.

Appendix F. Entrepreneurial activities descriptions

Practice	Description
Getting noticed	Ensuring pipeline of new contracts and revenue.
	Opening doors for future opportunities.
	Attracting potential clients.
	Networking with existing clients.
	Necessary practice to facilitate growth.
	Proactive orientation.
Winning contracts	Ensuring secure revenue.
	Key moments along journeys driven by gaining or losing contracts.
	Challenging for nascent entrepreneurs without prior exposure.
	Livelihood connected to revenue secured (fallback to personal savings)
	Struggling in this practice connected with struggling financially.
	Consideration for capacity to deliver.
	Inaccurate assessments resulted later in unexpected stress, pressures or additional costs to acquire capacity.
Meeting demands	Concerns for financial resources continued and escalated.
	Requirements necessary to ensure capacity for fulfilling demands.
	Emerging and ongoing challenge.
	Contingent on facilitating business growth and contracts.
	Ongoing consideration for capacity to deliver.
	Ongoing coping responses with unexpected stressors.
	<ul style="list-style-type: none"> - Limitations in capacity - Inadequate staff support - Financial pressure - Unexpected costs
	(Not necessarily preventable.)

Note 1: Reference with 11.2 Summary of findings for research questions

Appendix G. Coping strategies and responses

Coding for interview and diary research. References the coping checklist provided by Dewe and Guest (1990) consisting of 37 coping strategies and responses (actions) to handle work-related pressures includes a range of task-oriented coping behaviours.

Coping Strategy	Coping Response / Actions
Direct action (Problem-focused techniques) Scale I	Made of seven responses: 1. Setting priorities 2. Taking some immediate action with present understanding 3. Finding out more about the situation 4. Thinking objectively and keeping feelings under control 5. Letting people know where they stand 6. Working harder and longer 7. Giving opinions about how things are done or are going to work.
Emotional relief Scale II	Made up six responses: 1. Lose temper 2. Express irritability to self 3. Express feelings to work colleagues 4. Take feelings out on staff 5. Making people are aware you are doing your best 6. Represent palliative (emotion-focused) strategies
Utilisation of home resources Scale III	Five responses in this scale include: 1. Talking things over with spouse when you get home at night 2. Leave the problem and try and solve it later by talking it through at home 3. Face the situation knowing that your family and spouse give you help and a sense of proportion to the problem 4. Take some of the work home and work on it there 5. Don't forget work when finished for the day
Strategies of preparation Scale IV	Made up of six responses to prepare for dealing with problems: 1. Move to other activities you know can get satisfaction from 2. Ignore the apparent problem until you feel ready to handle it 3. Take a break and come back to the problem later 4. Tackle routine work so that you can cool down and get your composure back 5. Try and get as much rest possible so you will be fresh and alert at work 6. Drop the current activity and take up something totally unrelated
Distraction techniques Scale V	Comprises seven responses for avoiding the issue: 1. Make concerted effort to distract self with fun activities 2. Go and have a few beers 3. Take a day off 4. Become more involved in family life 5. Leave the office and go home early 6. Become more involved in non-work activities 7. Think of the good things in the future
Passive attempts to tolerate the situation Scale VI	Represents palliative (emotion-focused) responses, includes six strategies: 1. Letting the feeling wear off 2. Giving up and accepting what's happening 3. Doing nothing and try to carry on as usual 4. Self-reassurance that everything will work out 5. Self-reassurance that not all problems can be solved 6. Trying not to worry or think about it